

Koyils in the Colamandalam

Typology and Development of Early Coḷa Temples

An art-historical study based on geographical principles

G. Hoekveld-Meijer



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VRIJE UNIVERSITEIT TE AMSTERDAM

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Contents

Acknowledgements

List of Figures and Tables

List of Maps

List of Plates

Introduction

Chapter one

The Early Coḷa style : a triple problem of demarcation

1. Definition of the problem.	1
2. Formulation of hypotheses.	2
2.1. Hypotheses to be rejected.	2
2.2. Hypotheses relating the location of a building to its date.	6
2.3. How to interpret distribution-patterns as a means of dating monuments monuments?	9
3. Locating temples and demarcating regions.	15
3.1. Selection of temples to be investigated.	15
3.2. Demarcating regions on the basis of the distribution of temples.	16
4. Characteristics of and developments in demarcated regions in relation to a selected set of temple features.	16
4.1. Selection of temple features.	16
4.1.1. <i>Development of height: demarcating subregions.</i>	17
4.1.2. <i>Development of size: demarcating subregions.</i>	18
4.2. Characteristics of and developments in demarcated regions in relation to height and size of a building.	19
4.2.1. <i>Topographic diversity</i>	19
4.2.2. <i>Position of epicentres and their peripheries.</i>	21
4.2.3. <i>Periods of prosperity and decay.</i>	26
4.2.4. <i>Development of Saivism in Coḷa society</i>	27
5. Framework of our study.	31
Notes to chapter one.	33

Chapter two

The Early Coḷa style : a product of a marriage à trois?

1. Characteristics of pre-Coḷa architecture.	39
1.1. Characteristics of Pallava architecture.	39
1.2. Characteristics of Cāḷukya architecture.	42
1.3. Characteristics of Early Pāṇḍya architecture.	47

1.3.1. <i>The views of Soundara Rajan.</i>	48
2. Presupposed and known characteristics of Coḷa architecture.	58
2.1. The views of Sastri and others.	59
2.2. The views of Balasubrahmanyam.	62
2.3. The views of Barrett.	64
2.3.1. <i>The Coḷa adhiṣṭhāna.</i>	65
2.3.2. <i>Shape and decoration of the wall.</i>	68
2.3.2.1. <i>The kāl.</i>	69
2.3.2.2. <i>The podigai.</i>	69
2.3.2.3. <i>The devakoṣṭhas.</i>	69
2.3.2.4. <i>The makaratoraṇa.</i>	70
2.3.3. <i>The ground-plan of the vimāna.</i>	70
2.3.4. <i>The ground-plan of the ardhamāṇḍapa.</i>	71
3. Characteristics at the time of Rājendra I.	72
4. Determination of characteristics to be investigated.	73
Notes to chapter two.	78

Chapter three

The development of the vimāna and ardhamāṇḍapa in the Coḷamaṇḍalam between A.D. 850–1044

1. Distribution of the variants of the vimāna.	85
1.1. Typology.	85
1.2. Distribution of the variants; determination and description of uniform regions.	88
1.3. Chronology of the uniform regions.	91
2. Distribution of the temple variants based on the number of devakoṣṭhas per vimāna wall.	98
2.1. Introduction and definition.	98
2.2. Distribution of the variants; determination and description of uniform regions.	100
2.3. Chronology of the uniform regions and of the temples within these regions.	102
2.3.1. <i>Chronology of the regions.</i>	102
2.3.2. <i>Chronology of the temples within the regions of the delta.</i>	103
3. Distribution of pañjara vimānas.	111
3.1. Introduction and definition; typology, new hypotheses.	111
3.1.1. <i>Introduction and definition.</i>	111
3.1.2. <i>Typology of pañjara forms.</i>	115
3.1.3. <i>Hypotheses.</i>	116

3.2. Distribution of the vimānas belonging to the pañjara phase and the pañjara region.	117
3.3. Description of the vimānas with pañjaras.	118
3.4. Description of other vimānas in the pañjara region: consequences of the proposed chronology for their dating.	137
4. Distribution of the ardhamañḍapa variants.	150
4.1. Introduction and typology.	150
4.2. Distribution of the ardhamañḍapa variants; determination and description of uniform regions.	153
4.3. Chronology of the uniform regions.	154
4.3.1. <i>Chronology of the temples within the uniform regions of the delta.</i>	157
4.3.1.1. <i>Temples built during the reign of Uttama Cola: A.D. 969-985.</i>	159
4.3.1.2. <i>Temples built during the reign of Rājārāja I: A.D. 985-1014.</i>	164
4.3.1.3. <i>Temples built during the reign of Rājendra I in the Kāverī delta: A.D. 1000-1044.</i>	185
5. Conclusions.	185
Notes to chapter three.	187

Chapter four

The development of individual components of a vimāna in the Coḷamañḍalam between A.D. 850-1044

1. Introduction.	195
2. Composition of the adhiṣṭhāna.	198
2.1. Typology.	198
2.2. Distribution of the adhiṣṭhāna variants; determination and description of uniform regions.	202
2.3. Chronology of the regions.	205
2.4. Chronology of some temples in the delta based on the shape of their adhiṣṭhānas.	207
2.4.1. <i>Chronology of the temples built between A.D. 870 - 900.</i>	207
2.4.2. <i>Chronology of the temples built between A.D. 969 - 1014.</i>	207
3. Composition of the vari.	210
3.1. Typology.	210
3.2. Distribution of the vari variants; determination and description of uniform regions.	212
3.3. Development of the vari in and around the group of Sapta Sthānas.	214
3.4. Application of the vari in other regions.	219
3.4.1. <i>The region south of the undivided Kāverī.</i>	219
3.4.2. <i>The South Arcot District.</i>	220
3.4.3. <i>The Palar region.</i>	228

4. Composition of the upāna.	233
4.1. Typology.	233
4.2. Distribution of the upāna variants.	234
4.3. Chronology of some temples based on the shape of their upāna.	236
5. Composition of the kāl.	246
5.1. Typology.	246
5.2. Distribution of the kāl variants.	247
5.2.1. <i>The Kāverī area.</i>	247
5.2.1.1. <i>The Āditya I phase: A.D. 870-900.</i>	251
5.2.1.2. <i>The period between A.D. 900-969.</i>	252
5.2.1.3. <i>The period between A.D. 969-985.</i>	255
5.2.1.4. <i>The period between A.D. 985-1000.</i>	258
5.2.1.5. <i>The period between A.D. 1000-1044.</i>	263
5.2.2. <i>The South Arcot District.</i>	265
5.2.3. <i>The Palar region.</i>	272
5.3. Some observations regarding the presence of attendant figures.	273
6. Composition of the śikhara.	275
6.1. Typology.	275
6.2. Distribution of the śikhara variants; determination and description of uniform regions.	276
6.2.1. <i>The Tiruchinappalli District.</i>	278
6.2.2. <i>The "Irukkuvēl" temples in relation to the "Early Coḷa" Sapta Sthānas.</i>	297
7. Some considerations about the significance of the podigai.	299
7.1. The first appearance of the Early Coḷa podigai ca. A.D. 870.	299
7.2. The transformation of the shape of the Coḷa podigai ca. A.D. 990.	302
7.2.1. <i>The introduction of the T-shaped podigai in the Kāverī delta and its significance for dating temples.</i>	302
7.2.2. <i>The Palar region.</i>	307
7.3. Comments upon the podigai as indicator of a style.	316
Notes to chapter four.	322
Conclusions	331
Dutch Summary	339
Appendices	347
1. Genealogy of the Early Coḷas.	348
2. Alphabetical list of places in which Early Coḷa temples are located.	349

3. Examples of Pallava, Cālukya, Gaṅga and Bāṇa architecture.	354
4. Classification of the Pāṇḍya, Muttaraiyar and Irukkuveḷ characteristics according to Soundara Rajan.	358
5. Code-list of the variations in temple parts.	360
6. The development of the makaratoraṇa and the kūdu.	364
7. Temples belonging to the Sapta Sthāna style.	373
8. Characteristics and dates of the vimānas with pañjaras.	378
9. Characteristics and dates of vimānas without pañjaras built in the pañjara region or during the pañjara phase.	379
10. Temples belonging to the 1-8-1 category.	380
11. Temples belonging to the 8-3 category built in the Kāverī delta between A.D.969-985; temples built in the Kāverī area between A.D. 985-1044.	381
12. Temples east of the Grand Anicut arranged according to the shape of their adhiṣṭhāna and other characteristics, their dating.	384
13. Temples in South Arcot, their characteristics and their dating.	386
14. Temples in the Tiruchirappalli District arranged according to the shape of their śikhara, the composition of the grīvā niche and other characteristics; their dating.	388
15. Temples in the Palar region arranged according to the shape of their adhiṣṭhānas etc.	391
16. Some Pāṇḍya temples in the Tinnelveli District.	392
Bibliography	397
Glossary	400
Maps	405
Plates	423
Index	479

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List of Figures and Tables

All drawings are made by the author; some are based on observations in the field but do not represent exact measurements).

Fig. a. Construction of an Early Coḷa shrine with one storey and cupola.	xxiv
Fig. b. An Early Coḷa shrine with two storeys and a cupola.	xxvi
Fig. c. Cross-sections of typical Pallava, Cāḷukya and Coḷa buildings.	xviii
Fig. d. Roots of Coḷa architecture.	xxx
Fig. 1. Various types of distribution-patterns and connected (sub)regions.	10
Fig. 2. Arjuna Ratha, Mamallapuram. Architectural details and ground-plans.	38
Fig. 3. Mālegiṭṭi Śivālaya, Bādāmī. Detail of plinth.	44
Fig. 4. Lād Khān, Aihole. Detail of pillar.	44
Fig. 5. Lād Khān, Aihole. Detail Detail of podigai.	44
Fig. 6. Mālegiṭṭi Śivālaya, Bādāmī. Detail of makaratorṇa.	44
Fig. 7. Ground-plan of a Cāḷukya temple showing garbhagṛha(GG), ardhamaṇḍapa(AM) and mukhamāṇḍapa.	44
Fig. 8. Rājaraḷeśvara, Biccavolu. Detail of adhiṣṭhāna.	44
Fig. 9. Rājaraḷeśvara, Biccavolu. Detail of niche and makaratorṇa.	44
Fig. 10. Rājaraḷeśvara, Biccavolu. Podigai.	44
Fig. 11. Overlapping political regions in the Kāverī area and farther south, according to Soundara Rajan.	57
Fig. 12. Distribution of various types of śikhara in the Kāverī area and farther south, according to Soundara Rajan.	57
Fig. 13. Adhiṣṭhāna types according to Barrett.	66
Fig. 14. Typology of Early Coḷa adhiṣṭhānas (after Barrett).	66
Fig. 15. Distribution of adhiṣṭhāna types over three style phases.	68
Fig. 16. Early Coḷa podigai.	69
Fig. 17. Typology of vimāna ground-plans (after Barrett).	70
Fig. 18. Distribution of vimāna ground-plans over three style phases.	70
Fig. 19. Lay-outs of an ardhamaṇḍapa and its connection to the vimāna (after Barrett).	71
Fig. 20. Distribution of temple lay-outs over three style phases.	71
Fig. 21. Early Coḷa dvitāla.	84
Fig. 22. a) Example of an ekatāla (Type I) and its ground-plan variants.	86
b) Example of a dvitāla (Type II) and its ground-plan variants.	86
c) Example of a tritāla (Type III) and its ground-plan variants.	86
Fig. 23. The five ground-plan variants arranged according to the types I, II and III.	87
Fig. 24. a) True variants distributed per district.	89
b) Aberrations and omissions distributed per district.	89
Fig. 25. Chronology of the vimāna variants in the Muttaraiyar and Kāverī areas.	
Fig. 26. The sequence of the Sapta Sthānas as proposed by Balasubrahmanyam (1) and Barrett (2) or at random (3).	
Fig. 27. Chronology of the vimāna variants in South Arcot and the Palar area.	
Fig. 28. Approximate introduction and disappearance of the vimāna variants in: the Palar region, South Arcot, Kāverī region.	
Fig. 29. The supposed development of the devakoṣṭha from regional proto-types. (a) Muttaraiyar; (b) Cāḷukya; (c) Pallava and (d) Coḷa.	98
Fig. 30. a) The five subregions in the Kāverī delta.	103
b) Proposed chronology of the five subregions based on the number of niches in the walls of the vimānas located in these regions.	103
Fig. 31. Two examples of a pañjara. (a) the Olakaneśvara, Māmallapuram and (b) the Braṃmapurīśvara, Puḷḷamaṅgai.	112

Fig. 32. The four types of a pañjara.	115
Fig. 33. Development of the ardhamaṇḍapa in Early Coḷa architecture.	151
Fig. 34. Characteristic development of the temple lay-out in each major	
Fig. 35. Main characteristics of monuments built in the delta between ca. A.D. 969-1000 and between ca. A.D. 1000-1044.	160
Fig. 36. Individual components and their position on an Early Coḷa koyil.	196
Fig. 37. a) Theoretical combinations of the jagatī and kumuda.	200
b) Theoretical combinations of the jagatī, kumuda and kaṇṭha.	200
c) Theoretical combinations of the jagatī, kumuda, kaṇṭha and paṭṭikā.	200
Fig. 38. Approximate appearance, disappearance and frequency of the seven types of known Coḷa adhiṣṭhānas, per district.	206
Fig. 39. Temples built before A.D. 900; their adhiṣṭhānas, varis and other characteristics.	208
Fig. 40. Temples built between A.D. 969-1014; their adhiṣṭhānas, śikharas and layout.	209
Fig. 41. Architectural details of some Śembyan Mahādevī koyils.	
a) Umāmaheśvara, Kōṇērīrājapuram; b) Vṛiddhagirīśvara, Vṛiddhāchalam;	
c) Uktavedeśvara, Kuttālam.	211
Fig. 42. Chronology of and relations between the temples built before A.D. 900.	215
Fig. 43. Architectural details of some koyils around Tañjāvūr.	
a) Sundareśvara, Śendalai; b) Pañcanadīśvara, Tīruvaiyārūr;	
c) Nāgeśvara, Kumbakonam.	216
Fig. 44. Architectural details illustrating the slow development of the Early Coḷa style in an area dominated by a strong Pallava influence (South Arcot between A.D. 910-965).	
a) Abhirāmeśvara, Tīruvāmattūr; b) Kadambavaneśvara, Erumbūr;	
c) Śivalokanātha, Grāmaṁ; d) Śrīmūlanātha, Bāhūr.	221
Fig. 45. Architectural details of the Early Coḷa style in South Arcot characteristic for the 10th century.	
a) Bhaktajñāneśvara, Tīrunāmanallūr; b) Kundavai Vinnagar Alvar, Dadapuram.	223
Fig. 46. Dual development of temple architecture in South Arcot in the 10th century.	227
Fig. 47. Two regional, Early Coḷa variants in the Palar area.	229
Fig. 48. Tentative chronological sequence of large vimānas in the Palar region built between A.D. 995-1034.	237
Fig. 49. Four types of Early Coḷa kāl.	247
Fig. 50. Early Coḷa monuments built in the Kāverī area between A.D. 870-900 arranged according to base characteristics and combination of kāls.	250
Fig. 51. Early Coḷa monuments built in the Kāverī area and at Uḍaiyārgudi between A.D. 900-969 arranged according to base characteristics and combination of kāls.	250
Fig. 52. Early Coḷa monuments built in the Kāverī delta and at Vṛiddhāchālam between A.D. 969-1000 arranged according to base characteristics and combination of kāls.	254
Fig. 53. Lay-out and kāl features of temples built in the Kāverī area between A.D. 985-1000.	260
Fig. 54. Early Coḷa monuments built between A.D. 1000-1044 arranged according to base characteristics and combination of kāls.	262
Fig. 55. Evolution of the grīvā-niche in Tiruchirappalli District.	279
Fig. 56. Characteristics of the superstructures on vimānas built in the Kāverī area and in the Tiruchirappalli District between A.D. 870-900.	288-89
Fig. 57. Approximate appearance, disappearance and frequency of the Coḷa podigai, per district.	300

Fig. 58. Characteristics of temples along the Kāverī and in the delta built between A.D. 1000-1044.	303
Fig. 59. Three examples of the Middle Coḷa style of temple architecture. a) the Amman shrine in the compound of the Gaṅgaikoṇḍacoḷeśvara, Gaṅgaikoṇḍacolapuram; b) Gaṅgaikoṇḍacoḷeśvara, Kūḷambandal; c) Vēdāraṇyeśvara, Vēdāraṇyam.	305
Fig. 60 Basic changes in and additions to the temples in the Kāverī delta between A.D. 870-1044.	306
Fig. 61 Tentative clustering of monuments in the Palar area built during the 9th-11th centuries, according to their "Palar" and/or Coḷa characteristics.	308
Fig. 62 Ground-plans of the upāna and vimāna at a) Tañjāvūr and b) Gaṅgaikoṇḍacolapuram.	317
Fig. 63 General lay-out of the buildings at a) Tañjāvūr and b) Gaṅgaikoṇḍacolapuram.	317
Fig. 64 Composition of the various first tala kapotas of the vimānas at a) Tañjāvūr and b) Gaṅgaikoṇḍacolapuram.	319
Fig. 65 Types of upāna and adhiṣṭhāna at a) Tañjāvūr and b) Gaṅgaikoṇḍacolapuram.	320
Fig. 66 Important features of the spires at a) Tañjāvūr and b) Gaṅgaikoṇḍacolapuram.	321

Table A Anomalies in the distribution-pattern on Map 5.	90
Table B Anomalies in the distribution-pattern on Map 6.	154
Table C Anomalies in the distribution-pattern on Maps 7 and 9.	204
Table D Anomalies in the distribution-pattern on Map 10.	213
Table E Anomalies in the distribution-pattern on Map 11.	248

List of Maps

Coḷa empire under Rājarāja I and Rājendra I.	xxii
*ac 1 Major political movements in South India between A.D.600-985.	406
*ac 2 Eastern part of Tamil Nāḍu, topography and boundaries.	407
*ac 3 Location of early temples in Tamil Nāḍu.	408
*ac 4 Example of a computer-map.	411
*ac 5 Distribution of the ground-plan variants of vimānas.	412
*ac 5A Chronology of the regions based on the distribution of the ground-plan variants of the vimānas and on inscriptional evidence.	413
*ac 6 Distribution of the complete temple lay-outs in combination with the sum total of devakoṣṭhas in both the vimāna and the ardhamandapa.	414
*ac 6A Distribution of vimānas with pañjaras over the regions characterized by a dominant layout.	415
*ac 7 Distribution of the variants of the jagatī and kumuda.	416
*ac 8 Distribution of the vyāli-frieze, the kapota and the paṭṭikā.	417
*ac 9 Distribution of the adhiṣṭhāna-types.	418
*ac 10 Distribution of the variants of the vari and of the upāna.	419
*ac 11 Distribution of the variants of the kāl.	420
*ac 12 Distribution of the variants of the śikhara.	421
*ac 13 Distribution of the munai, vyāli, nāṭṭiya-peṇs, lateral sculptures, rafters and the lotus-bud.	422

List of Plates

(The illustrations are all reproduced from photographs made by the author)

Pls. 1-4 : Pallava monuments
Pls. 5-16 : Cālukya monuments
Pl. 21 : Pāṇḍya monument

Frontispiece:

Gaṅgaikoṇḍacoḷapuram	Gaṅgaikoṇḍacoḷeśvara	general view
Pl. 1 Māmallapuram	Arjuna Ratha	South-east view
Pl. 2 Kāñcī	Piravātaneśvara	North wall
Pl. 3 Kāñcī	Kailāsanātha	South wall
Pl. 4 Māmallapuram	Shore temple	base
Pl. 5 Paṭṭadkal	Virūpākṣa	pañjara
Pl. 6 Paṭṭadkal	idem	East wall
Pl. 7 Paṭṭadkal	Saṅgameśvara	South wall
Pl. 8 Bādāmī	Mālegiṭṭi Śivālaya	East view
Pl. 9 Bādāmī	idem	niche
Pl. 10 Biccavolu	Nakkalaguḍi	West wall
Pl. 11 Biccavolu	Village temple	East wall
Pl. 12 Biccavolu	Rājarājeśvara	South-east view
Pl. 13 Biccavolu	idem	niche
Pl. 14 Biccavolu	Candraśekharaśvāmin	niche
Pl. 15 Biccavolu	idem	pañjara
Pl. 16 Biccavolu	Goliṅgeśvara	South wall
Pl. 17 Viśālūr	Mārgasaḥāyeśvara	West wall
Pl. 18 Panangudi	Agastyeśvara	prastara, grTvā, śikhara
Pl. 19 Gaṅgaikoṇḍacoḷapuram	Amman shrine	a) South-west view b) South wall
Pl. 20 Kūḷambandal	Gaṅgaikoṇḍacoḷeśvara	a) South wall b) North wall
Pl. 21 Tiruvāltīśvaram	Vāltīśvara	a) Superstructure b) makaratorapa ardham. niche
Pl. 22 Gaṅgaikoṇḍacoḷapuram	Amman shrine	
Pl. 23 Tiruppalanam	Āpatsahāyeśvara	West wall
Pl. 24 Tillaisthānam	Ghṛta -sthāneśvara	West wall
Pl. 25 Tiruvēdikkudi	Vedapurīśvara	North wall
Pl. 26 Tiruchchātturai	Ōdavaneśvara	West wall
Pl. 27 Tiruvaīyārū	Pañcanādīśvara	a) kūdu b) podigai
Pl. 28 Tirukkandiyūr	Vītraṭṭaneśvara	North wall
Pl. 29 Melatiruppūndurutti	Puṣpavaneśvara	a) North wall b) niche
Pl. 30 Kumbakonam	Nāgeśvara	West wall
Pl. 31 Śrīnivāsanallūr	Koranganātha	a) South wall b) cut-out niche c) West wall d) (brick) rafters
Pl. 32 Lalgudi	Saptaṛṣṭīśvara	antarāla+ardhaman- ḍapa north wall

33	Kilaiyūr	a) Agastyeśvara	North view
34	Tiruchchennampūṇḍi	b) Čoleśvara	North view
35	Tiruchchennampūṇḍi	Šaḍayar Koyil	Before restoration
		idem	After restoration
36	Kāñcī	Kailāsanātha	a) South-east view
37	Māmallapuram	Mukunda Nayanar	b) makaratoraṇa
38	Puḷḷamaṅgai	Brahmapurīśvara	prakāra-walls
			śikhara
39	Tiruveṇṇambūr	Pipīleśvara	a) South-west view
40	Tiruppurambyam	Sākṣīśvara	b) West wall
41	Tiruvādūtūrai	Gomukteśvara	c) pañjara adhiṣṭhāna
42	Karandai	Vasīṭṭeśvara	d) adhiṣṭhānas
			pañjara
43	Tirumayānam	Jñānaparameśvara	North-west view
			pañjara
44	Kōyildēvarāyanpēṭṭai	Matsyapūrīśvara	a) North wall
45	Tudaiyūr	Viṣamaṅgaḷeśvara	b) North wall
			a) West wall
46	Manampādi	Śiva koyil	b) North-west view
			c) pañjara
47	Tiruvaiyārū	Ten Kailāsa	West wall
48	Kīḷappaḷuvūr	Vatamūleśvara	a) West wall
49	Goburapatti	Amaleśvara	b) pañjara
50	Tirumaṅgalam	Sāmadeśvara	a) West wall
51	Tiṇḍivanam	Tirutiṇḍīśvara	b) pañjara
52	Dadāpuram	Viṣṇu Koyil	pañjara
			South-west view
53	Tirukkaḷavūr	Madhuvaneśvara	West wall
54	Tirukkaliṭṭattai	Vedapurīśvara	North wall+pañjara
55	Gōvīndaputtūr	Gaṅgājaṭādhara	North wall
			a) North-west view
56	Tiruppalluṭṭai	Ādimouḷīśvara	b) pañjara
57	Aḷḷūr	Pañcanāḍīśvara	kapota
			South view
58	Tirukkāṭṭuppaḷḷi	Agnīśvara	a) North wall
			b) adhiṣṭhāna
59	Nemam	Airāvateśvara	North wall
60	Puñjai	Nalṭunai īśvara	a) South-east view
			b) North wall
61	Uḍaiyārgudi	Anāntheśvarasvāmin	a) North-west view
			b) niche
62	a) Tiruvirāmeśvaram	Rāmanātheśvara	South-west view
	b) Tiruvalaṅguḷi	Kṣetrapāladeva	a) South wall
63	a) Tirukkaḍaiyūr	Amṛtagheśvara	b) niche of Agastya
	b) Tirukkaḍaiyūr	Amṛtagheśvara	a) South-east view
	c) Tiruvalaṅguḷi	Śrī-Kapardīśvara	b) North wall
	d) Tiruvalaṅguḷi	Śrī-Kapardīśvara	a) North-west view
64	a) Tiruvaiyārū	Uttara Kailāsa	South wall
	b) Tiruvaiyārū	Uttara Kailāsa	(blind)niche
	c) Tirumiyachchūr	Mihirāruneśvara	North wall
			kumbhapañjara
			niche
			pañjara
			North-west view

Pl. 65	Pēraṅgiyūr	Śiva koyil	a) North-west view b) connection vimāna and ardhamāṇḍapa
Pl. 66	Tiruvāmattūr	Abhirāmeśvara	North wall
Pl. 67	Tiruvakkarai	Candramoulīśvara	North wall
Pl. 68	Tiruvāṇḍārkōyil	Pañcanādīśvara	a) South wall b) cut-out niche
Pl. 69	Tiṇḍivanam	Tirutiṇḍīśvara	a) adhiṣṭhāna+vari b) South-east view
Pl. 70	Tiruttāni	Vīraṭṭaneśvara	South wall
Pl. 71	Kāñcī	Sokkeśvara	a) South-west view b) prastara
Pl. 72a)	Uttaramallūr	Sundara Varadarāja Perumal	upāna
	b) Uttaramallūr	Ḷedareśvara	idem
	c) Bāhūr	Srīmūlanātha	idem
	d) Dadapuram	Iruvikulamānikka Tśvara	idem
Pl. 73	Taṇjāvūr	Rājarājeśvara	South wall
Pl. 74	Tirumullaivāyil	Srī Masi lamanīśvara	kumbhapañjara, podigai
Pl. 75a)	Brahmadēśam (S.A.)	Pātāleśvara	South wall
	b) idem	idem	false antarāla
	c) Vṛddhāchalam	Vṛddhagiriśvara	kapota
Pl. 76	Tribhuvana	Varadarāja Perumal	a) General view b) adhiṣṭhāna
Pl. 77	Pennadam	Pralayakāleśvara	grill-window
Pl. 78	Tiruveṇkādū	Śvetārahyeśvara	a) vimāna wall b) adhiṣṭhāna
Pl. 79	Colapuram	Agnīśvara	South wall
Pl. 80	Tirukkoḷikkāḍu	Agnīśvara	a) West wall b) West wall
Pl. 81	Kōvilāḍi	Divyajñāneśvara	West wall
Pl. 82	Madagadipattu	Tirukaṇḍīśvara	South-west view
Pl. 83	Jambai	Jambunātha	a) South-west view b) South wall
Pl. 84	Éśālem	Rāmanātheśvara	a) śikhara b) South wall
Pl. 85	Brahmadēśam (S.A.)	Brahmeśvara	a) South wall b) South wall
Pl. 86	Tirukkuhukavūr	Velladai Tśvara	North wall
Pl. 87	Nārttāmālai	Vijayālaya Coḷeśvara	General west view
Pl. 88	Kannanūr	Subrahmaṇyeśvara	prastara, grīvā-niche
Pl. 89	Tiruppūr (Tri.)	Śiva koyil	prastara, śikhara
Pl. 90	Kiranūr (Tri.)	Uttamadanīśvara	a) prastara b) vimāna wall
Pl. 91	Virālūr	Bhumīśvara	North-west view
Pl. 92a)	Kumbakonam	Nāgeśvara	prastara
	b) Tiruvālīśvaram	Vālīśvara	idem
Pl. 93	Koḍumbālūr	Mūvar Koyil	North-west view
Pl. 94	Chittūr	Agnīśvara	a) South-east view b) connection vimāna and ardhamāṇḍapa
Pl. 95	Alambakkam	Kailāsanātha	a) North-west view b) makaratorāṇa
Pl. 96	Śōmūr	Śomeśvara	South view
Pl. 97	Perungudi	Agastyeśvara	West wall
Pl. 98	Poinée reservoir (Vempakkam)	Śiva koyil	South wall

Pl. 99 Kāvanṭandālam

Pl. 100 Kāñcī

Pl. 101 Pudūr (N.A.)

Pl. 102 Dārāśūram

Coḷeśvara

Sokkeśvara

Siva Koyil

Airāvateśvara

a) South wall

b) kāl

Gaṇeśa niche

West wall

a) devakoṣṭha

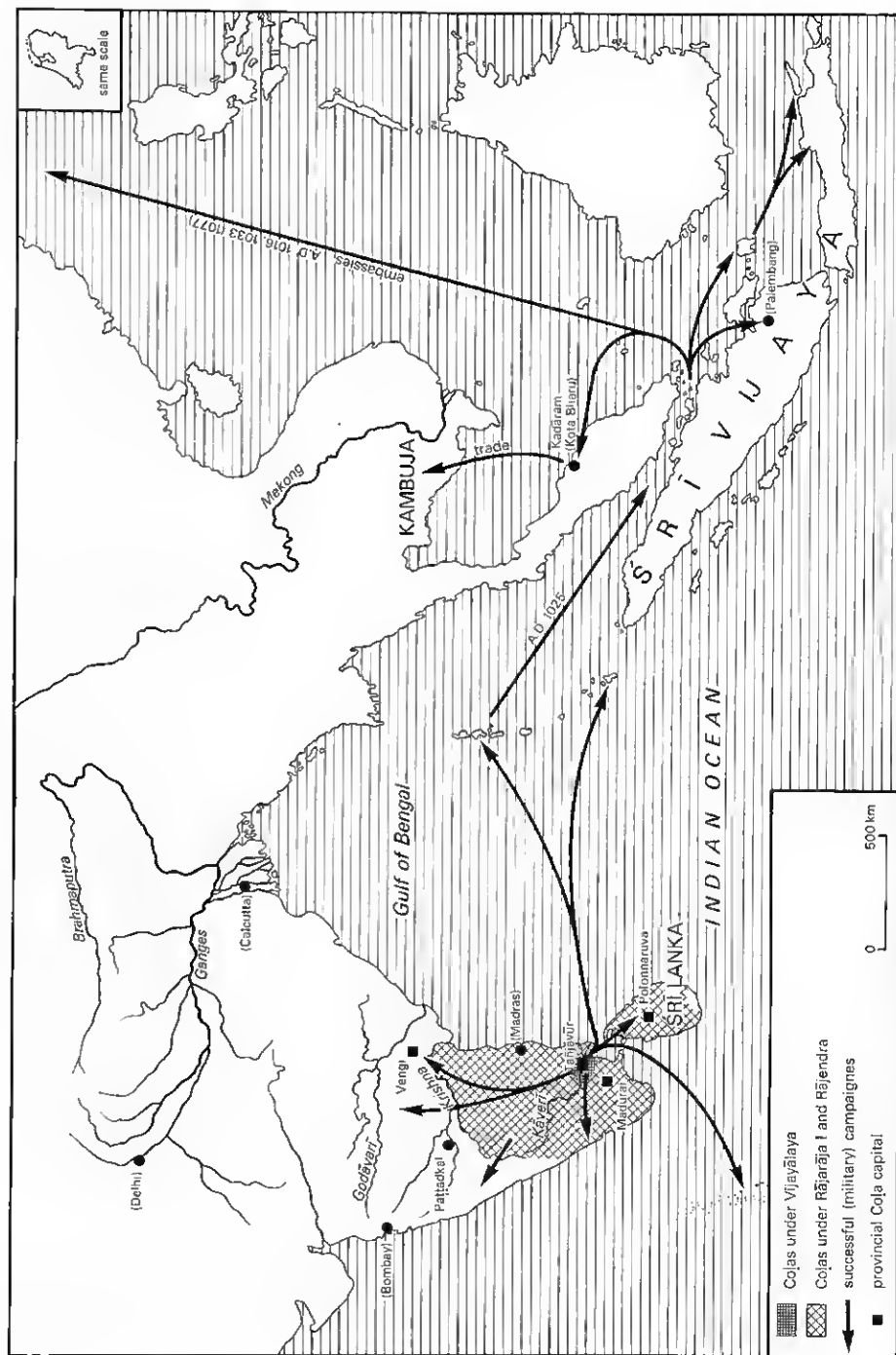
b) first tāla

c) adhiṣṭhāna

d) adhiṣṭhāna +
kaṇṭha

e) upāna

Coja empire under the Early Coja kings.



Introduction

The illustration on the cover of this book represents in a way the aim of our study. The road to our destination—a small triangle against a skyline blocked by cumbersome obstacles - was difficult to go. It ended in Gaṅgaikoṇḍaḥapuram, once the capital of a Coḷa king, now a hamlet along a secondary road in Tiruchirappalli District, Tamil Nāḍu. This king, whose name was Rājendra I (A.D. 1012-1044), had conquered the Gaṅges in the north of India, as his surname Gaṅgaikoṇḍaḥa indicates. He made a successful effort to conquer the skies as well. When nearing that small triangle it appears to be an immense building: a temple dedicated to Śiva and named after the king, the Gaṅgaikoṇḍaḥeśvara. The only other early example of such a large structure in South India is the Rājarājeśvara at Tañjāvūr, built by his father Rājarāja I (A.D. 985-1014). These two buildings look like mountains and that is exactly what they were meant to be. Made of granite from their base up to the pinnacle crowning their spires, they tease our imagination. What type of architectural development in the Coḷa empire could have caused such an outcome in an area where clay is the common building material? How long did it take to reach that summit, considering the fact that only small granite cubicles are supposed to be the forerunners of these stone colossi? In other words, when did it all start and who was the instigator?

The first king of this Coḷa line was Vijayālaya (ca. A.D. 850-871), a vassal of the powerful Pallavas in the northern part of the present Tamil Nāḍu. He ruled over a small laterite area west of the great Kāverī delta (maps 1-2) and came to power only after conquering the Pallavas. Tañjāvūr became his capital, a town situated rather strategically on a relatively safe highground surrounded by lands yearly flooded by the monsoon-fed Kāverī. From here, the Kāverī delta was annexed bit by bit. Since river-clays are far more fertile than laterite soils, Vijayālaya's economic position became strong. His son Āditya I (A.D. 871-907) consolidated this position and extended the borders of his kingdom including the old region of the Pallavas in the north. This story of success was continued

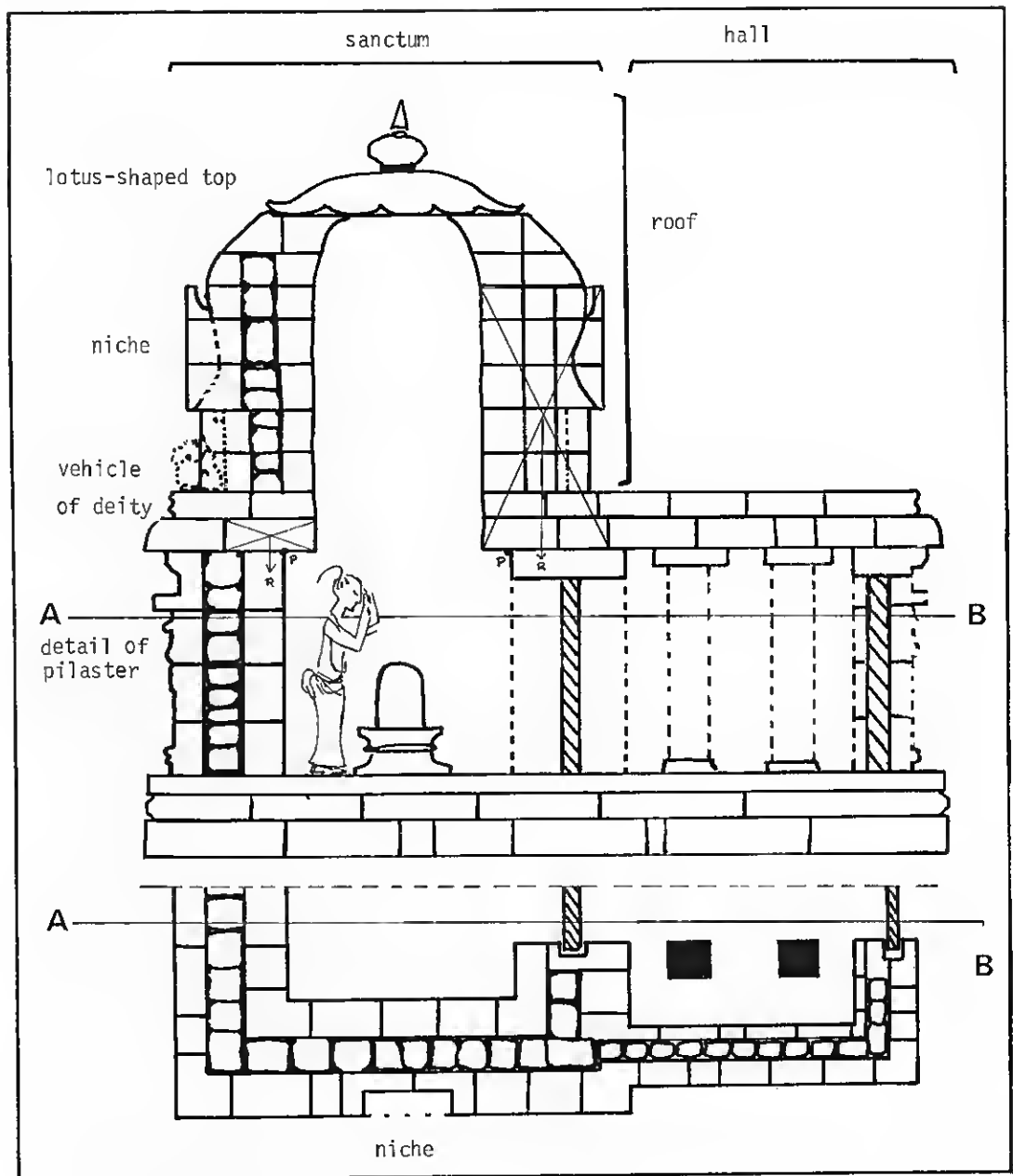


Fig.a. Construction of an Early Coḷa shrine with one storey and a cupola. In the roof niches jut out distinctly at the four cardinal points of the cupola. Together with the solid blocks carved in the shape of the deity's vehicle at the four corners of the cornice they were probably designed as contreforts. As a result, the centre of gravity(R) of the cupola's mass remains within the pivotal point(P). (schematic reconstruction on the basis of observations of some ruins such as those at Tiruchchennampūṇḍi and Pudūr(N.A.) as well as the Śokkeśvara at Kāñcī).

by Vijayālaya's grandson Parāntaka I (A.D. 907-955) who is known to have "taken the head of the powerful Pāṇḍya", which can only mean that he extended his rule in a southward direction, ransacking Madurai, the capital of the Pāṇḍyas, as his surname Madurantakam indicates. However, he was unable to keep the northern part of his empire under control. Between A.D. 945-970 the Coḷa power was reduced once again to the area of the delta and its immediate surroundings. Under Uttama Coḷa (A.D. 969-985) nearly all lost territory was recovered. He laid the foundation of the future empire for the next two generations: his nephew Rājarāja I and his grand-nephew Rājendra I. The whole area remained under Coḷa rule till A.D. 1250.

The power of these so-called imperial Coḷas was based on the one hand on the Kāverī and on the other hand on levying heavy taxes from the people of the conquered regions. The Kāverī is a mighty river the waters of which were gradually brought under control by means of a system of anicuts. An anicut is a type of weir regulating the velocity of flood-waters. Simultaneously, the regulated waters are subdivided through a network of channels. The westernmost anicut is called the Upper Anicut and is situated right in the middle of the area ruled by Vijayālaya before he became king. It lies west of the modern town of Tiruchirappalli. Here the Kāverī is divided into two: a northern stream called the Coleroon and a southern branch still called the Kāverī. Further eastwards we find the Grand Anicut. Here the Kāverī is again divided into two. Between this anicut and that at Tirukkāṭṭuppaḷḷi lies a village called Śendalai, once the capital of the Muttairaiyars who held the delta before the Coḷas took over. In Tirukkāṭṭuppaḷḷi the southern branch of the Kāverī is divided once more, while in the centre of the delta, near Kumbakonam, the upper Kāverī is divided by the Lower Anicut. Kumbakonam itself is an old religious centre dating from far before the Coḷas. This network of channels and anicuts was created to make an efficient use of the irregular, monsoon-fed waters of the Kāverī. As a result of this the Coḷa rulers became prosperous and their kingdom a political power.

About 150 out of roughly 200 Coḷa monuments are still in existence. They were built in the course of two centuries and are usually dedicated to Śiva. Together with stone and metal images they are the only remaining artefacts of that period. Before defining our problem we should like to make our reader familiar with some aspects of the Early Coḷa shrine. First of all, it must be pointed out that the Early Coḷa temples are spread over a vast area and are usually situated in a village or town. Comparing this type of distribution with

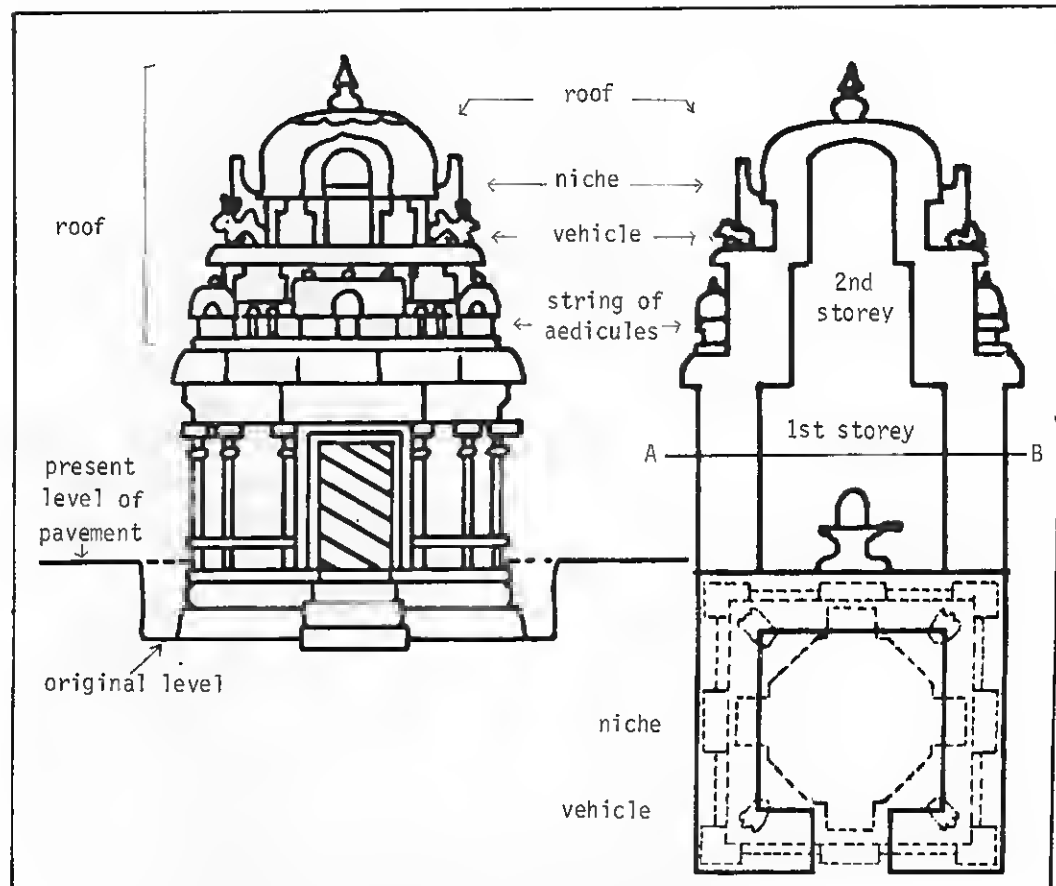


Fig.b. An Early Cola shrine with two storeys and a cupola.
A string of miniature shrines running around the second storey as well as the four vehicles and projecting niches on the second platform served as contreforts.

those of earlier products of South Indian architecture we were surprised to find that Cāḷukya as well as Pallava monuments are concentrated in capitals such as Aihole, Bādāmī, Paṭṭadakka and Kāñcī or near a harbor such as Māmallapuram (maps 1 and 2), whereas the Pāṇḍyas carved out cave temples at places far from the present villages. These facts are all the more striking as the oldest Early Coḷa shrines are not located at Tañjāvūr but in the area to the east and to the west of this Coḷa capital (map 3).

Another remarkable difference between Early Coḷa temples and those designed by the Cāḷukyas, Pallavas and Pāṇḍyas concerns their dedication. Whereas the Coḷas created monuments in honour of Śiva, the other South Indian dynasties dedicated their shrines to Viṣṇu, the Jina and only occasionally to Śiva. So, we are inclined to believe that the worship of Śiva in the Deep South became only a nation-wide involvement when the Coḷas came to power. This could perhaps be explained partly by the circumstance that the Tamils belong to the Dravidian race which in those remote days had not yet been converted to North Indian or Aryan forms of religion. Traces of animistic practices can still be found in present day Tamil Nāḍu and many aspects of Śiva are obvious substitutes of pre-Aryan deities. Possibly Śaiva rites were for the same reason adopted more easily than those connected with the worship of Viṣṇu or the Jina.

Hindu worship does not require immense halls to accommodate the devotees. Everybody can go and pray or offer food to the deity, as long as there is a priest to receive him and his offerings. Consequently, the profane part of a temple, i.e. the hall in front of the sanctum (Fig. a), was and in many cases still is, a small, dark and narrow corridor. The sanctum is normally only slightly larger than this hall. It contains a liṅga, the phallic representation of Śiva. The size of the liṅga determines the size of its shrine, for a tall liṅga requires a tall, a tiny phallic symbol merely a small shrine. The interior provides just enough room for a priest to perform the rites which are centred on the liṅga.

Early Coḷa temples have a square ground-plan and are relatively small for they never exceed 6 sq. metres, while a ground-plan of 4 sq. metres seems to be the minimum. The width of the hall never surpasses that of the sanctum. The interior walls are not decorated, the outside on the other hand is embellished with pilasters, corbels, crescent-shaped ornaments above niches and small panels under the pilasters. Usually a wall has four to six pilasters and one niche. The hall is covered with granite "beams" supported by two or four pillars on the inside, while on the outside it seems to consist of several parts as illustrated

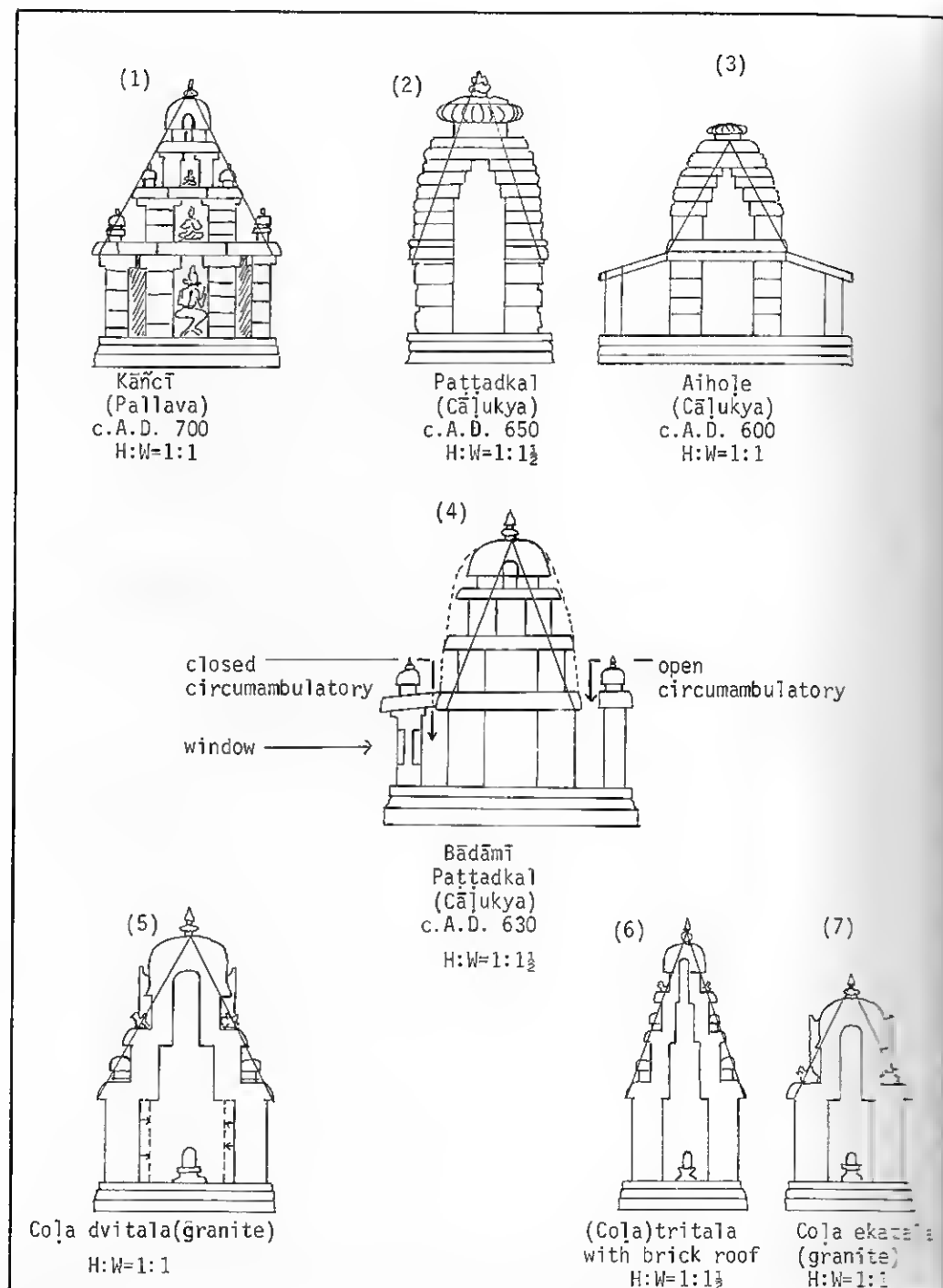


Fig. c. Cross-sections of typical Pallava, Cālukya and Coḷa buildings. H=height of superstructure; W=width of building.

in Figs. a and b.

The construction of an Early Coḷa shrine is rather simple. It is a small pile of granite blocks each measuring roughly 50 x 50 x 35 centimetres. The entire building rests on a platform of granite slabs. The walls consist of three parts (Fig.a). The stones of the outer and inner surface are neatly worked and fit perfectly, while the space in between is filled with rough blocks. The stones on the outside of the building are sculptured in such a way that they represent a section of the wall together with, for instance, a part of a pilaster or niche. Figs. a-c show that the construction of the "roof" is based on the principle of corbelling. This was a well-known method applied throughout India. In Cālukya architecture (Fig.c, 2-4) the inner curve — which is the result of this corbelling — is also exposed on the outside. However, in South Indian architecture of Pallava and Coḷa origin reminiscences of this inner curve are blotted out by the dominating lines of a pyramidal superstructure, at least in the case of buildings with more than one storey (Fig. c, 1 and 5-6).

It is obvious that careful provisions should be made to prevent the centre of gravity (R in Fig. a) of this enormous mass of granite resting on the walls from falling beyond the pivotal point P, as the roof is otherwise bound to collapse. Counterweights such as the solid blocks shaped into the "vehicle" of the enshrined deity — usually Śiva and consequently Śiva's bull Nandi — as well as the "necklace" of miniature shrines on the upper and lower platforms respectively, were probably invented to ensure stability. However, the best solution to the problem of instability — inherent to the principle of corbelling — is a steep pyramid as is best illustrated by the huge tower at Tañjāvūr, which is one and a half times as high (45 metres) as the width of its base. Other steep buildings showing more or less the same proportions are the tall temple gateways or gopuras. They are invariably huge constructions of brick at the four cardinal points of the walls enclosing a temple compound, dominating the South Indian landscape.

Instability must have been a major architectural problem in a period preceded by a tradition of rock-cut temples and monasteries. The following figures will demonstrate that Coḷa architecture was based on experimental forms seeking a solution of this obstacle. As far as we know no attention has as yet been paid to the form of South or Central Indian superstructures with regard to problems of instability. By the time the architectural manuals were compiled the proportionate measurements resulting in a particular shape and profile of a superstructure had meanwhile been forgotten or sublimated into symbolic mantras

The superstructure can be reduced to two basic types, viz. one in which

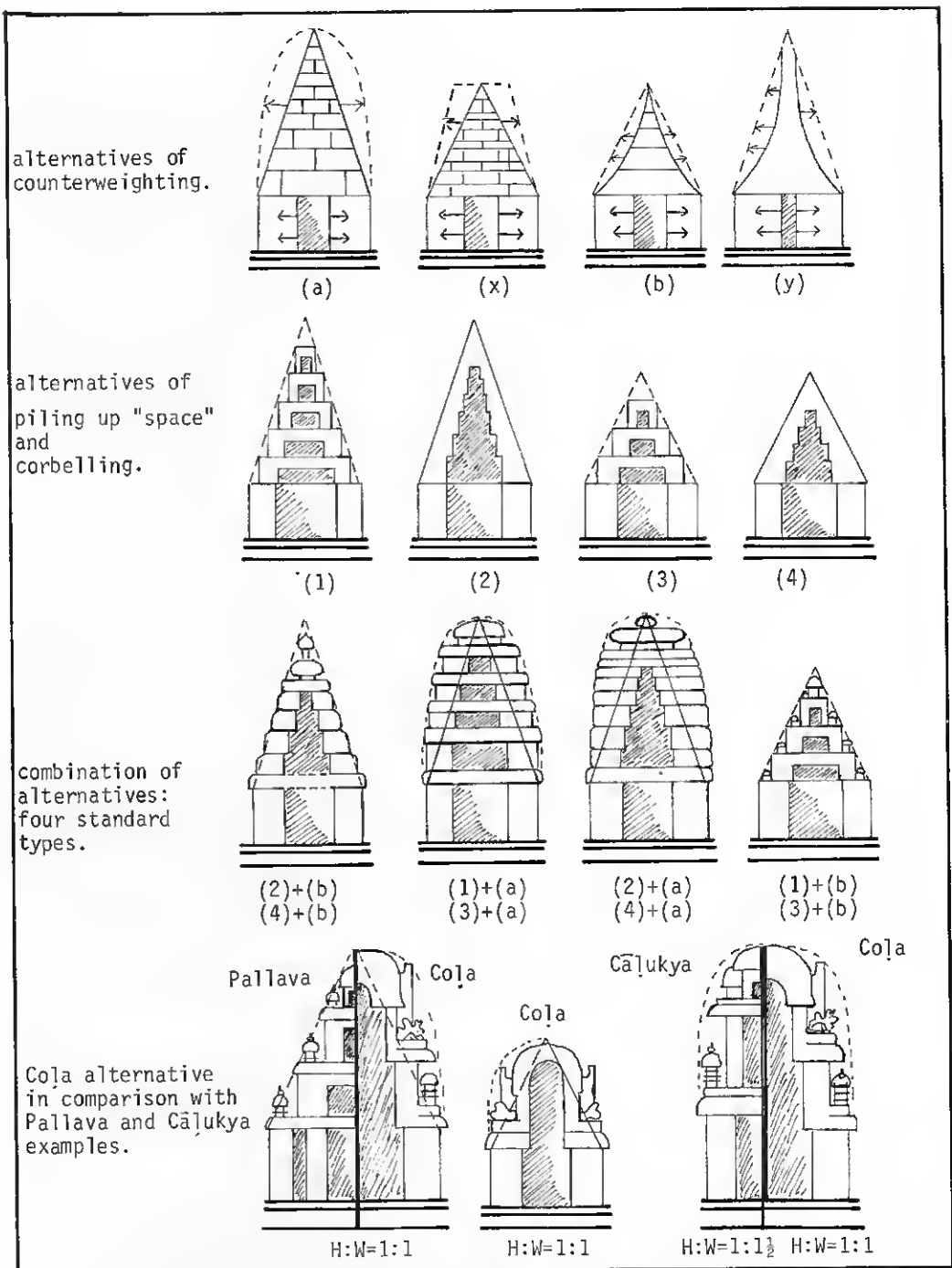


Fig. d. Roots of Coḷa architecture. Recombination of alternatives such as corbelling (Cāḷukya), piling up "space" (Cāḷukya and Pallava), the creation of counterweights by way of curvilinear "shoulders" (Cāḷukya) and aedicules (Cāḷukya and Pallava). H=height of superstructure; W=width of building; (x)+(2) is Coḷa gateway (front view); (y) idem, side view but in that case without doorway.

the height equals the width of the building and a second in which the height exceeds the width of its base. In the latter case $H = 1\frac{1}{2}W$ seems to be the most appropriate proportion. When the mass of the superstructure remains within the lines of the triangle formed by the roof as illustrated in Fig. d, first row, the height of the first storey must be very thick or double. Since the roof is meant to cover a cella the architects tried to place as much weight as possible on the base of the roof in order to prevent it from collapsing. The solution in which the masses of granite surpass the lines of the triangle as shown in Fig. d, (a) ensures more stability. The curvilinear contour which is one of the results of this experiment is characteristic of Cālukyan architecture(a); the triangular one is typical of South Indian gateways dating from the 11th century at least. Unfortunately, thick or double walls reduce the inner space of the cella to an unacceptable minimum. The weight of the roof can be diminished by placing storey upon storey(Fig. d, (1) and (3) or by corbelling (2) and (4). Combination of these two principles related to instability problems produces the standard types of temples (Fig. d, third row).

Comparing these four types with examples of Pallava, Early Cālukya and Coḷa architecture (Fig. c), it is obvious that the Coḷa order is a mixture of two architectural principles. In the first place, it combines the "Pallava" triangle with the "Cālukya" curvilinear contour which is the result of applying counterweights outside the lines of the, moreover, much steeper triangle. However, the counterweights of the "Coḷa" counterweights are derived from Pallava prototypes. A third remarkable contamination of forms is the shape of the Coḷa cupola (cf. Fig. d, second row). In comparison with its Pallava prototype it is an impressive dome. In our opinion this over-sized cupola is the result of experiments carried out in order to find a permanent solution of the stability of the roof, for most of the cupola's mass acts as a contrefort, including the otherwise unduly large niches at the four cardinal points. Finally, it should be pointed out that the number of storeys depends on the structural alternatives as illustrated in Fig. d, second row. For, a Pallava monument counts three storeys but a Coḷa building counts two — height and width being equal. Comparing a Coḷa temple with one storey with a Cālukya building it is obvious that the number of storeys of the latter exceeds that of a Coḷa building with the same width(cf. Fig. d, third and fourth row). This can be attributed to the necessarily large size of the Coḷa cupola. When a shrine is covered by a brick superstructure the number of storeys is usually more than in the case of a roof consisting of granite blocks. The relatively light bricks allow a rather steep type of corbelling which, moreover, remains practically within the lines of the triangle (Fig.c,6).

This results in a superstructure of three talas, whereas the required counterweight of the roof (Fig. c,7) forced its architect to design a single storeyed building with an enormous cupola.

Apart from these assumed developments in the structural aspects of Early Coḷa buildings, their architects should also be praised for other outstanding achievements. In the first place it remains a remarkable phenomenon that in a delta granite was applied instead of clay. The latter is available immediately and in abundance and was, moreover, a building material sanctioned by tradition since Vedic times. In the second place granite is by no means a common building material in Indian architecture. Even the legacy of extant Pallava monuments is only partly built of granite as most of these shrines are constructions of sandstone. On the other hand, the Pāṇḍyas living to the south of the Kāveri delta (map 1), carved out series of cave temples during the two centuries preceding the rise of the Coḷas in the so-called plateau, i.e. granite country. So, it is obvious that the technique of working hard stone was well developed throughout the southern part of the peninsula. Granite outcrops of a suitable size were successfully worked with simple tools such as the pointed chisel and iron mallet. First deep grooves were cut out with a similar chisel along incised lines indicating the required shape of a block. Then the protuberance was struck from the side and split off. This is rather easy due to the structure of granite.

Throughout the Coḷa period the methods of construction and the technique of working stone remained the same. Nevertheless, Coḷa architecture is usually divided into three phases, Early, Middle and Late, indicating a considerable change in stylistic aspects rather than in construction and technique. In our study we intend to trace the development of these changes from the earliest granite Śaiva koyils to the two large monuments towering more than fifty metres over the area once ruled by the Coḷas, viz. the Coḷamaṇḍalam.



Chapter one

The Early Coḷa style: a triple problem of demarcation

1. Definition of the problem

During our stay in Tamil Nāḍu between 1966-71 we became fascinated by the earliest representatives of Early Coḷa architecture. At that time there existed only one comprehensive study of this subject, viz. the first publication of Balasubrahmanyam (1966). It was based on a thorough analysis of inscriptions concerning the temples supposed to have been raised during the reigns of the first two Coḷa kings. When visiting these shrines we noticed that Balasubrahmanyam had not taken into consideration the widely varying features of these monuments. So, we found it more and more hard to believe that the temples were actually in the chronological sequence proposed by him. Moreover, his study was not based on fundamental questions such as :

- how could the granite architecture of the Early Coḷas develop in a delta?
- what are the most specific characteristics of the initial stage of its development in relation to the preceding architectural styles in and around the delta?
- how did these features develop?
- what are the criteria which distinguish Early Coḷa monuments from other buildings raised in the same vast and undefined area or during the same period?

In other words, we were confronted with a triple problem of demarcation, viz.:

- the demarcation of a combination of style features which distinguish an Early Coḷa monument from other temples;

2. the demarcation of the period in which these combinations were designed, divided into phases corresponding with distinctive changes in their development;
3. the demarcation of the area in which these buildings were raised.

A problem of quite a different nature was how to proceed. It will be obvious from the above that we could not rely on an impressive body of published material during any stage of our research. Subsequent publications on this subject did not improve this situation, for their respective authors merely as-studied a specific area as well as a specific period in which a specific development of Early Coḷa architecture took place without putting their presumptions to the test or relating them to a theory with regard to the development of a style. This being the situation we had to start our investigation in a field which had not yet been explored theoretically. So, we had to begin by formulating a set of hypotheses and then check whether or not they could be substantiated.

2. Formulation of hypotheses

2.1. Hypotheses to be rejected.

We shall first summarize the hypotheses which had to be rejected and explain why they were unsuitable for our research, though each of them could in principle provide an interesting subject of study.

In the first place we could assume a relation between the size, shape and symbolic function of measurements in Coḷa architecture. Such a relation does exist in temple architecture elsewhere in India as Kramrisch(1946) demonstrated in her excellent analysis of the old manuscripts dealing with sacred architecture. At the same time, it should be remembered that the surviving manuals of South Indian architecture seem to date at the earliest from the 11th century. Moreover, the original features of many an Early Coḷa temple are spoiled or invisible, for plinths tend to disappear into the pavement and granite roofs are liable to collapse and are then usually replaced by brick constructions which are higher than the original superstructure. Consequently, it is hard, if not impossible, to trace the proportionate measurements of Coḷa architecture. It is, therefore, not surprising that studies on the relation between size, shape and the proportionate measurements on the one hand and the specific deity enshrined on the other hand, are lacking. To the above mentioned difficulties obstructing a study of Coḷa art, we may add the circumstance that in many instances the original dedication of a temple to a particular deity or manifestation of Śiva, is either uncertain or has been blotted out, due to frequent alterations in the name of the shrine.

Another set of hypotheses could refer to the appearance of a temple in relation to its physical and cultural environment and — more important — the assumed or known developments in any of these environmental conditions in relation to changes in appearance of shrines built under these new conditions. However, it is hardly possible to establish a chronological sequence of the assumed environmental changes. It is true that Sastri(1955) contributed immensely to our knowledge with regard to the history of the Coḷas which embraces four centuries. However, he did not, or perhaps could not, differentiate sufficiently the chronologically unstructured information which the epigraphists of the Archaeological Survey of India had been — and still are — producing since the end of last century. Sastri's systematic survey provides us with an almost panoramic view of daily life during the Coḷa period but his focus is on centuries, while for our purpose we would have to zoom in on decades, which is impossible.

A third aspect which has so far never been analyzed in a satisfactory way, is the assumed relation between variation in shape and/or size of a temple and the development of South Indian iconography during the Early Coḷa period. Appayappa Rao(1968²) provided a fairly complete inventory of, among others things, South Indian Hindu iconography but he did not reveal basic regional differences in preferences, or historical developments related to these regional variations. However, it should be remembered that Śaiva and Vaiṣṇava iconographies were already fully developed in Central and North India before the Coḷas came to power. Moreover, a Hindu revival seems to have taken place in the predominantly Buddhist and Jain, Tamil country. As a result of this the iconographical representation of Śiva and/or Viṣṇu might already have been standardized at the beginning of our period. Unfortunately, it is hard to extract from the scanty and often legendary information to which extent the non-brahmin population was involved in this revival. Since the earliest dated Coḷa monuments do not demonstrate the manifest wish to depict more than one of Śiva's aspects, we can merely wonder whether Āditya's conquest of the delta and its villages might have been simultaneously a Śaiva crusade against other persuasions including animistic practices.

Finally, it could be said that the authors mentioned below hardly ever explicitly formulated an art-historical concept with regard to the development of Early Coḷa architecture. In general it is understood — but not demonstrated — that Coḷa shrines developed gradually from tiny buildings into larger ones and that the number of their niches increased (Balasubrahmanyam 1966). Barrett(1974) assumed a development from simple shapes to more complex buildings and associated building activities with political successes and upheavals without relat-

ing these occurrences to variations in type. Finally, Soundara Rajan(1978) theorizes about processes of amalgamation and crystallization but he does not explain which parts of the building are involved in these developments and, consequently, he cannot put his assumptions to test. In an earlier publication (1975) he even tried to deny the authorship of the Coḷas in a large number of cases without providing a sound theoretical basis or argumentation.

To an outsider it may look strange that such prominent scholars did not carry out some fundamental research on art-historical questions. However, Balasubrahmanyam — and to a lesser extent Barrett too — was convinced that a temple can be dated on the basis of its oldest inscription. In other words, both authors assumed an indisputable relation between the age of a shrine and the earliest record on its walls. The shape and other stylistic characteristics of a specific monument are thus attributed to a particular year or Coḷa king. Arranging the buildings according to this chronology, their features were then taken to represent a stylistic development. This method might have provided excellent results but for the fact that the epigraphical publications reveal a striking failure to extract from these inscription-covered buildings the secret of their age. They are indeed like old ladies, their lovely faces covered with the soft lines of age accompanied by a mild and silent smile. When asked the date of their birth, their wrinkles — the Tamil characters of the records — give away very little and force scholars into differing interpretations with regard to the shape and the layout of the temple in question.

We shall give a short summary of the pitfalls into which one stumbles involuntarily when relentlessly associating a date derived from an inscription with the age of the building on which it is engraved.

In the *first* place, records may occur on slabs used as floor-tiles in the temple-compound, or somewhere else in the village. Such inscriptions have, of course, no value whatsoever for the dating of monuments. Yet, they have been applied for this purpose. *Secondly*, they may be copies of older inscriptions, because the temple was renovated completely in the course of time. Sometimes the renovators were so kind as to mention that copying had taken place. Indirectly such information could be used to trace at least the year of renovation, although often only the most important inscriptions were saved for posterity and these are not necessarily the latest of the older set of records. In the *third* place, inscriptions occasionally lose their dates — which indicates innovation — because the older slabs had to be fitted into the new design, their size hardly ever matching. Then it is often possible to deduce from the name of the king or

of other important persons to which period the record belongs, although the disagreement among scholars about the identity of the persons referred to by the names in the inscriptions, sometimes becomes fierce. There are cases in which the same person turns out to have been born in two centuries. A good example of such a controversy is a temple in the village called Kodumbāūr in the Tiruchirappalli District. For the sake of posterity, a complete genealogy of the royal house is engraved on the walls of this shrine. Instead of receiving a solution for all further problems about the interpretation of names and chronology, the poor geographer must undergo a historical dispute, embracing centuries, without being given a convincing answer. One can imagine that the medieval historian Barrett — one of the few scholars writing about Early Coḷa art and architecture — once escaped from such an inscriptional riddle by concluding that the fabric itself ¹⁾ as a result of which he added to that riddle the historical phenomenon that written words are silent, while stones appear to speak. In the fourth place, the dutiful brahmins who recorded the information on these stones often did not take the trouble of mentioning the name of their king, but merely gave his honorific title such as Rājakesari(varman) or Parakesari(varman) — titles which were used by the Coḷa princes in turn. This, of course, reduces the number of possible identities, but the problem of the name of the king in question remains unsolved. The fact that the name is not mentioned merely becomes a problem — because dates as we know them were not used by the Coḷas; the year of a king's reign was mentioned by indicating the position of the stars. In the fifth place, in some areas of the Coḷa territory, the habit of recording the daily offerings and gifts on temple walls — the usual content of these inscriptions — was hardly developed. Only now and then an important event was reported *in extenso*. Under these circumstances it is not surprising that some scholars erroneously took the year mentioned in the record as the date of the temple. However, it is obvious that the temple itself could be much older. In the sixth place, the year of construction or the year of consecration is rarely mentioned. Since only twenty per cent out of roughly two hundred possess stones on which this piece of information was engraved, we are forced to believe that these facts were not considered worth mentioning! When, apparently, it was not customary to report the consecration — though it would seem to us to be the most important event which could happen to both the founders and the building — it is unlikely that the earliest recorded gift was at the same time the very first ever made to the temple. We simply do not know the criterion for the engraving of such a minor fact.

The above six points may have clarified that "the horse is put behind the

cart", when monuments are dated merely on grounds of inscriptional evidence.²⁾ It rather "thrusts a spoke between the wheels" and thus the voyage to our final destination -- the discovery of the stylistic development of Early Coja architecture -- is bound to fail.

We summed up somewhat extensively why the oldest dated record on a temple wall cannot provide a sound basis for dating a monument. Unfortunately, dated buildings are the only means to test whether or not a hypothesis with regard to a stylistic development is valid. Realizing that securely-dated Early Coja shrines are rare, we had to follow a procedure in which the results deduced from one hypothesis, viz. the dates of monuments, were collated with the outcome of other hypotheses. In those cases in which the assumed dates coincided we used these dates for a very general, chronological sequence of temples. Only after arranging them in this way a more detailed description of the buildings was possible and the characteristics and development of Early Coja architecture could be traced. The crucial question was which hypotheses could be sufficiently substantiated to produce acceptable dates.

2.2. Hypotheses relating the location of a building to its date.

In order to avoid a situation in which a hypothetical, chronological arrangement of style features is used as "evidence" against other arrangements of an equally uncertain kind, we searched for "external evidence". In our opinion this type of evidence can be found in the way the Coja monuments are distributed over the area. As a result of our training as a social geographer we were inclined to consider Coja temples primarily as a group of *localized objects*. It seemed to us that apart from the obvious characteristics which are important to an art-historian, the *locational characteristics* should also be taken into consideration. The locational characteristics of a building depend on:

1. its absolute location, viz. its location in a particular place;
2. its relative location, i.e. its time, cost or social distance between one or more other locations to which it is related; and
3. its location as a point in a particular distribution-pattern.

Ad 1. The relevance of associating a location with its environment can best be illustrated by the following example. A region can be characterized by its soils, its geology, its irrigation-system, or by its population. The quality of the soils correlates with the population density. From the geology we learn which raw materials could be selected as building material; from the irrigation-system it can be deduced how the population was distributed over the area.

These factors influenced the development of a regional style variant. In an area intersected by many rivers bricks made of river-clay will occupy an important place among the building materials. A combination of wooden beams and stone, for the frame and the walls of a building respectively, can be expected where there is sufficient water in the great river-valleys and their environment to maintain forests for the supply of timber. The situation is quite different in those areas where large rivers are lacking, for there is no raw material. The production of bricks, as only sands and gravels are available from the bed of the often tiny streams. Moreover, especially in India, there are extensive areas with either hard materials like quartzites, granites and gneisses, or softer materials such as sandstones and tuff. The last two types are easy to quarry and to tool and seem to have inspired artists to create miracles of lace-like carvings worked in stone, whereas such lace-covered monuments do not occur in the Chinese country.

As for the population, it can be prosperous or poor, tolerant or dogmatic in regard to religious matters and can have reached a particular stage of cultural or economic development. All these features somehow determine the manner in which the shrines were envisaged. It is evident that the soil and the climate of a region do not change considerably over a longer period. Their stability could be the reason why one or more features do not change either. On the other hand, characteristics of a population are changing constantly and have created many stylistic features.

Examples of relative location are for instance the manner in which the distance between the building and the source of its building material can be bridged. Owing to fluctuations in transportation techniques distances may be long or short, a factor which might influence the size of a shrine. Relative location can also be expressed as social distance. Family relationships in a caste society, for instance, can tie settlements more closely together than the time or cost distances between them would seem to suggest — a fact which might be responsible for the occurrence of identical types of shrines located at great distances from each other.

Monuments can be dated tentatively on the basis of their location under the following conditions. In the first place we should be able to formulate a set of possible hypotheses relating the shape and size of temples to the distance between their sites as well as to a number of characteristics of the area in which they occur. Secondly, we need at least some information regarding changes in regional characteristics and/or in the capacity to cross distances during the period to be analyzed. If these conditions are fulfilled, then the shape and size

of localized buildings can be associated with a particular, historically dated change. Since we have already pointed out that in our case historical data are scarce these first two approaches may not be easy. However, in combination with a third method they will prove to be more useful.

Ad 3. Instead of treating a temple as an individual object it can be regarded as part of a class on the basis of one or more characteristics which are considered significant to a particular problem. When we map these features a distribution-pattern will appear which shows either a uniform spread of one particular variant (for instance a dominance of square roofs), or a chaotic spread in which many variants seem to be haphazardly distributed over the area (for instance square, circular, octagonal and apsidal roofs occurring next to each other), or a rather systematic clustering of some variants creating regions in which one particular variant dominates (for instance a region characterized by temples with square roofs surrounded by an area in which the octagonal shape occurs most frequently).

How to interpret these various types of distribution-patterns? Once again a set of hypotheses should be formulated. However, this time they are directly derived from the distribution-patterns and not from — usually hardly available — historical information. Of course, an infinite number of distribution-patterns can be imagined and, consequently, an impressive amount of theories regarding the way they should be interpreted. In our case we are only interested in those interpretations which allow us to relate the location of a monument to its date.

The kind of distribution-patterns which can be connected with this type of interpretation should exhibit distinctive clusters of variants of one or more selected features. In case the position of the clusters can be related to a known or probable, cultural centre we can infer their relative age and, consequently, the average dates of the shrines characterized by the variants in each separate cluster.

The hypotheses underlying this method are derived from spatial diffusion theories the subject of which invariably is the spread of a phenomenon, idea, or technique throughout a region during a particular period.³⁾ We shall now proceed to formulate these hypotheses and explain how they can be related to distribution-patterns.

1. An innovation (or style feature) has its own cultural epicentre from where it spreads in all directions depending on the course of physical, cultural as well as political boundaries or barriers.
2. An innovation (or style feature) tends to spread from its centre of origin with a certain speed depending on the transport capacity of roads and carriage

3. An innovation (or style feature) tends to be adapted in the course of its transmission or even to be overtaken by a more recent variant which either has a more powerful transmitter or is recognized by its receivers as a more agreeable or better contribution to their needs than the earlier innovation.
4. Adoption or adaptation of an innovation (or style feature) depends on the relative distance between settlements. Adoption occurs when distances are short and/or contacts are frequent; adaptation occurs when distances are long and/or contacts are rare or infrequent.
5. Place and time of arrival of an innovation (or style feature) depends on the position of the receiver in a network of interaction such as road-patterns, trade-routes, hierarchical structures of settlements, and family relations.⁴⁾

Before turning our attention to the distribution-patterns which can be expected on the basis of these five hypotheses we may point out that, theoretically, the first three result in undisturbed, uniform patterns. However, pure distribution-patterns hardly ever exist for they are "spoiled" by irregularities due to either renovations or relics of one or more other epicentres which made their influences felt in the area in question. A further source of anomalies are local peculiarities such as those formulated in the last two hypotheses. These last two aspects will also be taken into consideration in the following section.

2.3 Interpreting distribution-patterns as a means to date monuments.

On the basis of the first two assumptions in which the direction of a spread is related to regional characteristics and to speed, a distribution-pattern can be expected as illustrated in Fig. 1a, p. 10. This figure shows the unadulterated adoption of a feature independent of the distance from the cultural centre. When demarcating the three clusters (Fig. 1b) we may conclude that the buildings in region III might be younger than those in region II, while the monuments located around the epicentre were the first to be raised. However, the spread of Fig. 1a suggests more, for there are vast areas which proved to be inaccessible to the particular stylistic feature of which the distribution is mapped. So, we may assume the existence of a countryside which is difficult to cross or a situation in which only pockets of, for instance, Śaiva villages are located in an area dominated by Buddhists or Jains. The first possibility might be easily corroborated by topographical maps. In our case the second possibility cannot be checked since we are insufficiently informed about the spread of Buddhism and Jainism in the Coḷamaṇḍalam. The most we know is that some large Buddhist monasteries existed on the coast and that a few Jain caves were carved out in the

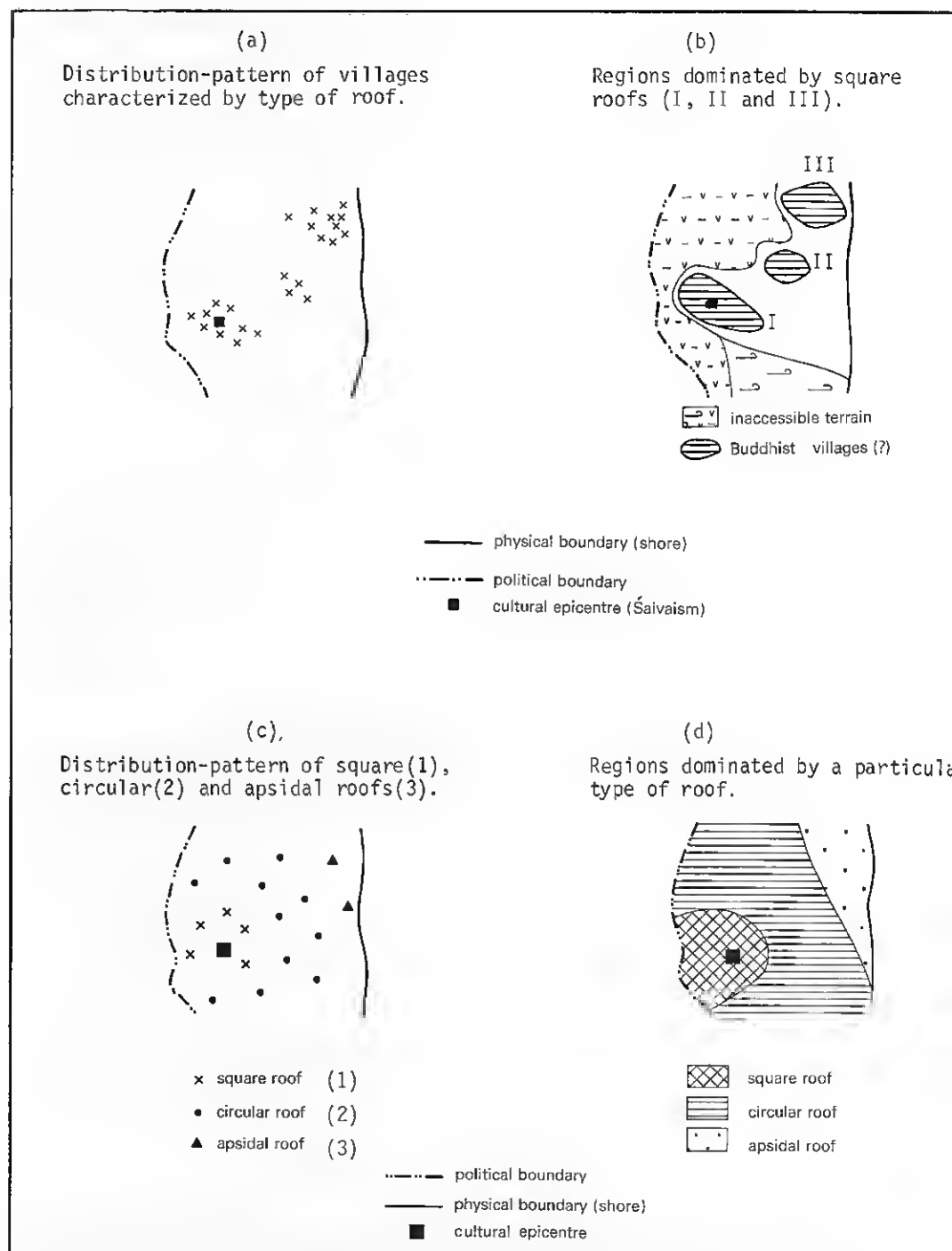


Fig. 1. Various types of distribution-patterns and connected (sub)regions.

(e)

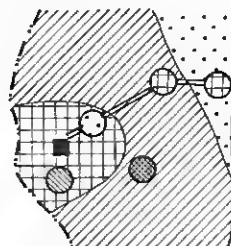
regularities in the distribution-
pattern of Figs. a and c.



- x square roof (1)
- circular roof (2)
- ▲ apsidal roof (3)
- octagonal roof (4)
- ◇ rectangular roof (5)

(f)

Anomalies in the subregions,
as shown in Figs. b and d.



- square roof
- circular roof
- apsidal roof
- octagonal roof
- rectangular roof
- main road

- political boundary
- physical boundary
- cultural epicentre

(g)

Distribution-pattern of temples
characterized by a
particular type of roof.

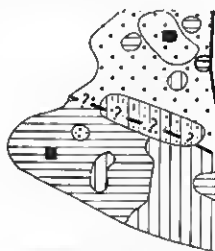


- x square roof (1)
- circular roof (2)
- local variants of circular roof (2', 2'', 2''')
- ▲ octagonal roof

- political boundary (assumed)
- physical boundary
- cultural epicentre
- ?-?- zone of contact between two cultures

(h)

Subregions dominated by a
particular type of roof.



- square roof
- circular roof
- variants of circular roof
- octagonal roof

plateau country . However, basing ourselves merely on the location of the religious monuments dating roughly from the period between A.D. 850-1050 we may conclude that the population was then concentrated in three large clusters situated along the most important rivers of Tamil Nāḍu (cf. Fig. 1a and map 3). Consequently, any temple located in either region II in Fig. 1b (South Arcot on map 3) or region III in Fig. 1b (North Arcot and Chingleput on map 3) and exhibiting features of which the origin can be traced to region I in Fig. 1b (Kāverī area on map 3), must be younger than its prototype.

The simplicity of the distribution shown in Fig. 1a is rather unrealistic. Normally we are confronted with a more complicated situation as illustrated in Figs. 1 c-d, p. 10. The interpretation of this type of pattern is, once more, rather simple. There are three clusters of which the eldest is the core. Around the central region are two zones. The outermost zone contains buildings which were raised most recently. Each change in shape coincided with a further cultural annexation of the entire area. A similar simple pattern is found in the Kāverī area, provided we accept the Coḷa capital Tañjāvūr as an epicentre. If not, then the map could equally be interpreted as a development in the reverse direction(cf.Fig.1d and maps 5-6).However, the first interpretation presupposes either an empty area in which, for instance, Śaivism could spread unimpeded from the capital to the coast – concurring with the regulation of the Kāverī – or an area populated by people of heretic denomination who were eliminated or converted to Śaivism in the course of time. Future research may well reveal that either of these historical processes or a combination of both started out from Tañjāvūr.

In general, distribution-patterns are contaminated by intrusions as illustrated in Figs. 1 e-f, p. 11 (cf. maps 5-11 and tables A-E). One of the anomalies in Fig.1e can be explained as the result of renovation during the phase in which, for instance, apsidal roofs became popular (replacement of 1 by 3). Other irregularities can be relics of an older culture or are renovations during a period in which the apsidal form ceased to be attractive(4). They can also be the result of an alien influence in the area (5). For instance, rectangular roofs are restricted to Vaiṣṇava shrines and as such they are anomalies in an area where during a particular period only Śaiva temples were erected. The location of the 1 along the coast might be the consequence of a direct road-connection between the capital and the harbor(Fig.1f).More inland, the 1 in a field of 2's might be situated in a settlement along this road. In all cases the irregularities or anomalies can be roughly attributed to a particular phase but not to a particular

period. The 3 in the area dominated by 1's is about as old as the buildings raised in the region characterized by 3's; the temple with the octagonal roof was not designed during the phase in which the square roofs(1), were dominant; the monuments with square roofs outside the 1-area are more or less contemporary with those built in the core and indisputably older than the monuments of the areas in which the circular and apsidal roofs occur.

We may point out that the interpretations of this type of pattern are based on the assumptions mentioned under 1-3, pp.8-9 in combination with those formulated under 5, p. 9. The last seems to be particularly applicable to the buildings far to the north of the Kāverī area, situated along an ancient road connecting them with Tañjāvūr(map 6).

Fig. 3-h, p. 11 show combinations of situations illustrated in the previous figures. However, there are two important additions. Firstly, a second epicentre is "spoiling" the picture. Secondly, the number of objects in each cluster varies as the distances between their settlements differ. Due to the differences between the frequencies of the various anomalies, we may conclude that the objects with feature 4 in an area characterized by 1's or 2's are relics of an epicentre located in the north. Consequently, they are older than the other objects in that area, but younger than the objects with feature 4 located in the south due to the distance between their centre of origin and their location. For the same reason objects characterized as 2', 2" or 2''' might be younger than those indicated as 2 and located in the southern cluster. However, it is impossible to decide which of the three local variants is older without formulating additional assumptions regarding this subregion. In the South Arcot District the sites are widely separated and their monuments are characterized by features which can be associated with either the Pallava or the Coḷa style. Each shrine shows a specific combination of these features. These local or even regional - variants result in a distinctive cluster resembling that illustrated in Fig. 1g (cf. map 5). In view of the fourth assumption relating to the process between settlements to a process of adoption or adaptation, the uniform distribution in the southern region of Fig. 1h can be explained by the fact that the area is thickly populated in contrast to, for instance, the central region. Probably as a result of this the latter shows no uniform spread. In the densely populated area around Tañjāvūr there is unfortunately no uniform distribution-pattern at all in the case of some of the style features (cf. map 1, 3-10). In those cases in which a spread around an epicentre shows no uniformity whatsoever we have to assume an overflow of experimental ideas to the immediate neighbourhood.

From the simple examples just mentioned it is obvious that an analysis based on the distribution-patterns of Coḷa temples is promising, for many of the style features show one of the patterns discussed above. However, it is equally clear that such an analysis should only be carried out when the number of localized objects is large enough to establish (sub)regions which in addition should be studied in relation to each other. In other words, the only type of distribution-pattern which allows us to attribute its objects to a certain period, is that which can be demarcated as (sub)regions on a map. The position of these subregions in relation to each other and to the known or assumed cultural centre provides an insight in their relative age and consequently, in the dates of the objects characterized by their variants.

From the first condition it is obvious that the number of variants of one single feature determines the minimum number of objects to be studied, or to put it differently, the more variants are known of a specific feature, the larger the number of objects to be taken into consideration. It is also obvious that each time a new feature is analyzed the distribution-pattern of its variants may show subregions different from those studied earlier on for the simple reason that — apart from its number of variants — each feature is characterized by its own spread, speed, direction and acceptability.

The second condition presupposes the existence of one or more epicentres, for without these the relative position of the subregions cannot be determined.

Before deciding which stylistic features might demonstrate suitable distribution-patterns we should like to point out that an analysis based on distribution-patterns presupposes the existence of either a region with well-defined boundaries or of a region with boundaries demarcated by the extension of a spread. The characteristics of the regions thus defined can be inventorized and related to the type of distribution-patterns they contain. Unfortunately, the boundaries of the Coḷa empire as well as of its divisions are unknown. Moreover, they shifted almost every fifty years. Furthermore, initially we did not know which objects in the rather unlimited area of South India ought to be selected. For, in order to relate distribution-patterns to regional characteristics we have to decide first which objects are to be investigated. Once we know the location of the objects we can demarcate regions and inventorize their features. So, we have to start with explaining the procedure of selecting the monuments before we can seriously discuss which of their features should be studied.

3. Locating temples and demarcating regions

3.1 Selection of temples to be investigated.

We started our investigation by consulting the excellent publications of the Archaeological Survey of India dealing with South Indian Epigraphy. This almost inexhaustible source has one great advantage: apart from the names of the temples it gives their locations per district and, where possible, a translation of their inscriptions. On the basis of these translations we decided which temples had to be visited. The criterion for the selection of a particular shrine was the presence of records in the name of one or, preferably, more Early Coḷa kings (appendix 1). This may seem a rather arbitrary criterion, but it should be realized that the epigraphical reports are the most comprehensive source as compared with other publications, for they contain the maximum number of published sites. Moreover, during the last two centuries, the British district collectors and the civil servants of the Archaeological Survey carefully combed out the South Indian countryside tracing as well as mapping monuments and translating as well as publishing inscriptions in due course. Reconstructed temples which had lost their original records and monuments without inscriptions cannot be discovered this way, so our inventory is incomplete. On the other hand, our method does not really require a complete picture, for as long as there are sufficient objects distributed in such a way that (sub)regions can be demarcated, the missing values, viz. the characteristics of lost monuments can more or less be predicted.

Another point is whether it was correct to limit our inventory to temples carrying inscriptions of the first ten Coḷa kings, their reigns covering a period of almost two centuries, viz. c.A.D.850-1044. Usually, the Early Coḷa period is considered to end either at the start of Rājārāja's rule in A.D. 985 or at its end in A.D. 1014, whereas the beginning of the Early Coḷa phase is fixed in A.D. 850, or 870, or even c. A.D. 890. For this reason we decided to include in our survey all monuments with records of Rājendra I (A.D.1012-1044) and Śaṭṭya I (A.D.871-907) as well as the obscurely dated, or even more often, undated shrines attributed to the period during which Vijayālaya (c.A.D. 850-900) was ruling in some parts of the delta. This way we created a wide margin on either side of the "stylistic" phase which is normally assumed to start around c. 870 and to end in A.D. 1014 at the very latest.

Our inventory amounted to roughly 200 sites. About 150 monuments appeared to be still in existence. These are enumerated in appendix 2 while their locations are shown in map 3. The list on which we originally based our fieldwork between 1966 and 1971, deviated only slightly from that published by Balasubrah-

manyam in his second and third volumes on Coḷa architecture(1971,1975). Returning to Tamil Nāḍu for a short visit in 1977, we completed our list on the basis of Balasubrahmanyam's additional information.

3.2. Demarcating regions on the basis of the distribution of temples.

Mapping the sites of the monuments it appeared that almost all are located in the coastal area of Tamil Nāḍu(map 3), except for Kolar, a town along the road to Bangalore. The distribution of the Coḷa temples over this vast area is rather unbalanced, for the majority is situated along the many branches of the Kāverī. A second large cluster lies between the Korttalaiyar and the Cheyyar – an area coinciding with the Pallava heartland. A third, relatively small group is located in the South Arcot District in between the Pallava country and the Coḷa delta. Immediately to the south of the undivided Kāverī and already in plateau country we find a group of rather dispersed sites. It is an area which was at one time inhabited by at least two important communities, viz. the Irukkuvēḷ at Koḍumbālūr and the Muttaraiyars more to the east. Further south no monuments of any importance were discovered. Judging from inscriptional evidence there must have been some buildings with Coḷa records but due to the impact of (Late) Pāṇḍya architecture most traces of these shrines have been erased except for a very small number which are widely separated and which can, therefore, not be considered a subregion(see also appendix 16). Consequently, the monuments supposed to have been built during Coḷa rule can be subdivided into four distinct clusters of localized objects not only because they are obviously individual regions but also due to the fact that the history of these four regions can be linked either to a well-known dynasty and community or to no community at all as in the case of the South Arcot District.

Having established which temples should be investigated as well as the areas in which they are located and the period about which information had to be collected, we could now settle the question which style features provide distribution-patterns on the basis of which the dates of the monuments characterized by these features, can be deduced.

4. Characteristics of and developments in demarcated regions in relation to a selected set of temple features

4.1 Selection of temple features.

A Coḷa shrine consists basically of a few elements, viz. a base, a body, a cornice and a "roof". The base as well as the cornice are built up of several mouldings; the walls of the body are divided into panels by pilasters and niches; the

superstructure is a kind of pyramid consisting of at least one element representing a reduced form of the complete temple often surrounded by a string of miniature shrines. These basic elements show variations throughout the first two centuries of the Coja period. However, at this stage of our survey it was impossible to formulate hypotheses with regard to the chronological sequence of the observed variations which could be put to test. Moreover, without further information their distribution-patterns are hard, if not impossible, to interpret (cf. maps 9-13). Consequently, we had to look around for other aspects. These are of a structural nature.

The Early Coja temple is a mass of sculptured blocks enclosing a dark cella or garbhagṛha⁵⁾ and a narrow corridor. The size of the sanctum cannot change much — as we already indicated on pp.xxvii-xxix — but variations in height can be observed. Since height is directly related to size, a change in height results in an adaptation of the ground-plan and *vice versa*. In contrast to other aspects of a shrine, variations in height and/or size can be translated as developments due to changing conditions of the physical and cultural environment in which the temples were raised. So, we first had to settle the question which developments in height and/or size of a shrine might have been likely. Then we had to find out whether or not these supposed developments appear in their distribution-patterns showing configurations of subregions as indicated in Figs. 1a-h. Finally, we had to corroborate our conclusions with whatever inscriptional evidence is available about the monuments as well as the historical events in the four subregions between A.D. 850 and A.D. 1050.

1.1. *Development of height: demarcating subregions.*

It is relatively simple to pile up masses of stone blocks. On the other hand, the Coja architects were almost certainly not familiar with the rules of gravity other than by way of experience. So, in the early days each construction must have been an experiment which was apt to collapse. Now, it is obvious that an ekatala is a more stable structure than a building with two or more storeys. Therefore, we assume that Early Coja architecture developed from a style characterized by ekatalas to one in which gradually taller buildings were constructed. This development must have been accompanied by an increasing knowledge regarding stability problems and their technical solutions.

This hypothesis is not contradicted by the distribution-pattern of ekatalas, tritalas and tritalas as illustrated in map 5 — at least not in the subregions surrounding the Coja capital. Elsewhere this assumption does not seem to work, for the eastern part of the delta is a subregion dominated by ekatalas, whereas

we would have expected tritalas. The picture in the South Arcot District and further north is rather chaotic. In the Pallava territory tall buildings are common phenomena as early as the 7th century. However, the construction of Pallava shrines is basically different from that of Coḷa monuments (cf. pp. xxviii and xxx). It is, therefore, out of the question that knowledge was transferred from the Pallavas to the Coḷas.

In view of all this we have to assume that variation in height was either for some reason bound to a particular region, or was the result of a technical development as seems to have been the case in the core of the Coḷa country. In the latter case we shall have to explain the observed reduction in height in the eastern parts of the Kāverī delta.

4.1.2. Development of size: demarcating subregions.

Size can be related to the availability of building materials. When the king or the architect decided to use granite slabs instead of bricks — as can be inferred from inscriptional evidence⁶⁾ — then distance from the quarry to the site might have been a limiting factor with regard to the size of a building.

The size of a sanctum can be related to that of its ardhamaṇḍapa or hall. This corridor is small as long as the number of devotees is limited. Whenever this increases the hall must be enlarged. Consequently, the proportions of the sanctum and its height have to be adapted as well.

The size of a sanctum and/or hall depends on the number of niches in their exterior walls. A tendency to multiply iconographical representations in stone or in painting, therefore, implies an enlargement of the size of the ground-plan as well as an increase in the height of a building.

Before turning our attention to the question what might have caused an increase in the number of devotees and/or niches we should first turn to maps 5 and 6. Here we see that the distribution-patterns in the Kāverī area as well as in the South Arcot District reveal that the temples are taller and larger as the distance from Tañjāvūr increases. Since the Kāverī area includes the countries of the Muttaraiyars, Irukkuvēls and Coḷas, it implied that three out of four main regions display a distribution-pattern which was sufficiently promising to continue our research as will be demonstrated in chapter three.

4.2. Characteristics of and developments in demarcated regions in relation to height and size of a building.

4.2.1. Topographic diversity.

The Pallava territory between the Korttalaiyar and Cheyyar consists of granites,

gabbros and charnockites near Māmāllapuram and gondwana sandstones near Kāñcī. The rather infertile area is intersected by moderate to small, narrow rivers, the largest of which is that of the Palar.

Pallava constructions are based on the principle of piling up storeys in diminishing sizes (p. xxviii). As long as building material is available, they can be high, for they are stable. The only limiting factor with regard to height might have been the vertical transport of the sandstone and granite blocks. On the other hand, it must be realized that the ceiling of each storey provides a comfortable platform on which the blocks for the next tala could be placed. These blocks could be brought up through a hole in the platform or by an earthen ramp on the outside of the finished part of the building. In view of this it is obvious that the availability of building material is hardly a limiting factor with regard to the size of Pallava monuments. At the same time the technique of Pallava architecture allows for tall, and consequently, for large buildings.

The situation in the South Arcot District is different. Here tiny rivers flow through extremely narrow and short valleys in a predominantly laterite area and widen for several kilometres before they empty into the Gulf of Bengal. The distribution of rainwater is regulated by means of tanks or reservoirs. The settlements of villages and of Coḷa temples is located near the tankbunds. These are typically curved, earthen dams which stand perpendicularly on the slope of the hills. The waters of the monsoon are caught behind them. These reservoirs have existed in South India since the earliest times, for gifts and ordinances concerning the maintenance of tankbunds form an important subject in the epigraphic records.⁷⁾ Tanks are distributed as regularly as possible over the land-surface in order to guarantee a maximum water-storage, given an average annual rainfall. Consequently, the distribution of "tank" temples is far less concentrated than that of the "delta" or "river" shrines. The average distance between the villages — and so between the temples — is greater in the crystalline area than in the valleys and the delta. These two facts influenced the development of temple architecture in this district. For, the occurrence of granite outcrops in the laterite area is small, and consequently, the appropriate building material is scarce, resulting in a predominance of ekatalas in this area. Due to the large distance between settlements these ekatalas are, moreover, bound to display distinctive, local variations.

The dominant geological formation along the Kāverī and in the delta is clay. We assume that the few buildings which were not constructed of wood but of stone were based on the principle of corbelling, as was the case further north.

Contemporary, secular structures which might confirm this view have not survived. However, a strong argument in favour of our assumption is the fact that the Early Coḷas applied corbelling in their granite architecture which in medieval South India was based on an entirely different principle as indicated above. It seems, therefore, that an area with a brick tradition goes through a different architectural development than a region situated right in the middle of plateau country, the more so because a sudden switch from the use of bricks to granite seems to have taken place.⁸⁾

In view of the presence of subregions with dvitalas on either side of an area with ekatalas we assume that the latter is the oldest tract and that the two subregions containing dvitalas are later and more or less contemporary with each other. This implies that in the initial stage of Early Coḷa architectural know-how — more than distance — may have been the decisive factor. For, the dvitala area to the south of the undivided Kāverī — inhabited by the Irukkas and Muttaraiyars — is plateau country in which granite was definitely easily available. On the other hand, distance could have been a problem for the construction of really tall temples. With the exception of the Rājarājeśvara at Tañjāvūr and the Gaṅgaikoṇḍacoḷeśvara at Gaṅgaikoṇḍaḷapuram, all Early Coḷa monuments are strikingly smaller than most of the granite and sandstone Pallava shrines which are much older but built right in the middle of a granite or sandstone outcrop. They are also distinctly smaller than the sandstone temples constructed by the Eastern Cāḷukyas and the Bāṇas at more or less the same time as the Early Coḷa shrines.⁹⁾

Remains the question how the Coḷas learned to quarry and to tool the hard granites they so obviously enjoyed using. Topographic particularities should not be considered divorced from technical level and skill as this merely leads to the appreciation of a few materials. Individual technique and skill are qualities originating in a large group of people. This was as true in Vijayālaya's time as it is today. Technical knowledge is not "place-bound"; it can be bought or taken along as booty. There is no other plausible explanation for the sudden switch of Vijayālaya's architects from brick to a material which was first of all not found in the immediate neighbourhood and, secondly, many times harder to tool. There are other examples of this course of events. For instance, the Virūpākṣa temple at Paṭṭadakkaḷ, which was built by a sthāpati from the south. The Coḷas scored great victories during the first 70 years of their rule and conquered many areas such as that of the Pallavas in the north and that of the Pāṇḍyas in the south. In view of this it is quite likely that the Coḷas used the (forced) services of the Pallavas and Pāṇḍyas — the first famous for their

and structural designs, the latter for their cave temples.¹¹⁾

Location of epicentres and their peripheries.

In order to confirm the assumed development from ekatalas around Tañjāvūr to a period in which dvitalas were erected followed by a period in which the tritala was a technical possibility, we should first establish whether or not Tañjāvūr has been the epicentre in the initial stages of Coḷa architecture. Whether or not products of other epicentres interfered as obvious irregularities in our neat distribution-pattern. If Tañjāvūr was a cultural epicentre it must have been an important political centre as well. Now, in general, a powerful power nearly always has a strong economic base. Usually, the ruling power has a well-organized army and administration to safeguard that base.

It can be levied and collected—an advanced form of economic exploitation—and subtly, carefully planned raids can be organized. In both cases the result is a flow of money and goods towards the political centre.¹²⁾

Through their inscriptions and epitheta the Coḷa kings impress one as rulers who possessed great political power in three distinctive periods, not only in South India, but also in parts of Southeast Asia.¹³⁾ They were able to operate longest and most continuously in the area now called Tamil Nāḍu. It appears for instance, from the many records on temple walls reporting the activities of royal accountants who came to check whether the villages and towns had duly paid their taxes. In case of back-payments, measures were accordingly taken.¹⁴⁾ From this large area money and goods flowed to Tañjāvūr. The capital of the Coḷas, situated in the apex of the Kāverī delta.¹⁵⁾ In addition, the booty of successful campaigns or maritime expeditions was invariably brought to Tañjāvūr via Kāverīpatnam, the port on the Gulf of

The administrative organisation of the Coḷa empire can more or less be compared to the system of the present districts and their subdivisions, the result is a result of the continual change of names and the accompanying changes of borders, the original nomenclature provides an opaque picture, making it completely impossible to trace temples in the field and map them.¹⁶⁾ We have, therefore, used the present division in districts and *taluks* for our survey. It is useful to start with a short review of the districts in which Coḷa temples occur and a concise description of the political relation between these districts and Tañjāvūr (map 2).

Although the Coḷas did not originate in Tañjāvūr District, it is undoubtedly the most important area, both for these rulers and for our investigation. The

first king, Vijayālaya, presumably came from Uraiyūr near the present town of Tiruchirappalli and settled in the city of Tañjāvūr which is situated ca. 10 km east of Śendalai, the capital of the Muttaraiyars (map 1). Both communities lived in continual discord, most probably because they had identical objectives: viz. the conquest of the fertile delta, in the apex of which they were almost vis-a-vis pushing each other aside. This area was situated between two powerful and influential nations, the Pallavas in the north and the Pāṇḍyas in the south. The Tañjāvūr District can be said to have had a kind of double peripheral position vis-à-vis to the cultural, religious and political powers of the Pallavas and the Pāṇḍyas seated in Kāñcī and Madura respectively. The Muttaraiyars and the Coḷas tried to achieve their aim by becoming vassals of one of these great powers. The Coḷas, apparently, were lucky and gained the strongest ally, for the Pallavas defeated the Pāṇḍyas and the Muttaraiyars, thanks to the Coḷas. In gratitude the Coḷas were allotted large parts of the delta.

The Districts of North Arcot and Chingleput form the area where the Pallavas were lord and master during the three centuries preceding the rise of the Coḷa empire. Kāñcī was their capital, situated on the Palar, in the centre of the realm, almost 40 km. west of Māmallapuram, the port at the mouth of that river. Already long before the Pallava state grew into a powerful empire, Kāñcī was a world-wide known Buddhist centre. During Pallava rule Māmallapuram, better known by the name of Mahabalipuram, became a kind of open-air workshop, situated on the boulders of a granite outcrop protruding into the sea, where a number of new architectural forms were tried out. These exercises in sculptural "architecture" determined the character of the structural style in this part of India for many centuries.

While the achievement of the Pallava sthāpatis must have had a cultural impact on their Coḷa successors, the political relations changed in as much as the Pallavas in their turn became vassals of the Coḷas. Their territory began to function as a kind of spring-board from where the Coḷas and the Pallavas penetrated into the realm of the Eastern and Western Cāḷukyas and their vassals such as the Bāṇas. A study of the inscriptions on the temple walls in this region shows, that during the whole period of our investigation, contacts between Tañjāvūr and this area were quite intensive. Almost every Coḷa king spent some time there fighting, building temples and erecting paṭṭapaḍas or memorial shrines over the remains of his predecessors.¹⁷⁾ Consequently, the supposition that the buildings in this area are witnesses of strong Pallava rather than Coḷa influences does not seem justified.

The Districts of Tinnelveli and Madura together form the region ruled by

the contemporaries of the Pallavas, the Pāṇdyas. Little is known about these
[13] There are no structural temples that can be dated with certainty
before A.D.1000. On the other hand, there are a large number of crude cave-
temples, which are considered the predecessors of the structural Coḷa temples.
However, the Pāṇḍya sculptors did not possess the skill to tool the hard granite of
their region in the refined manner of the Early Coḷas. Taking into account that
the Pāṇḍyas and Coḷas were alternately allies and arch-enemies,^[19] it may be
assumed that the temples built during the time that the Coḷas could consider
the Pāṇḍya territory as part of their empire, will rather belong to the
central domain of the Coḷas than to a regional Pāṇḍya variant, since the Coḷas
employed more capable artisans.

The Tiruchirappalli District nowadays has a shape which is difficult to
fit into the administrative division of the Coḷa period. The district consists
of two separate units. The most important area lies south of the Coleroon and
the Kāverī and west of the Grand Anicut, of which we know that it was a flood-
control-dam existing already before the days of Vijayālaya. This region was
originally inhabited by the Irukkuvels and Muttaraiyars.^[20] It is a crystalline
area except for the banks of the Kāverī forming a golden rim from where the
Kāverī and the Kāverī join, uptill beyond Tañjāvūr in easterly direction (map 2).
Historically, the Muttaraiyars disappeared when Vijayālaya conquered their
territory and capital. Their influence on Coḷa architecture may, however, have been
considerable since it is generally assumed that all undated small temples in
this area were erected by them. In that case they knew already at a very early
stage how to build structural temples of granite. However, it should be
remembered that this region was for a long time part of the Pallava territory.
Hence the Muttaraiyar idiom should yet be considered as a Pallava variant.

The remaining part of the Tiruchirappalli District is an extension of the
Arcot District, with the exception of the area bordering directly on the
Coleroon. This zone belongs both geomorphologically and socio-economically to
the delta. The whole region north of the Coleroon is characterized by tank-
irrigation. There are several rivers like the Ponnaiyar and the Manimuktam,
but these are small and have cut into the crystalline so that here — unlike
the delta — an abundant supply of riverwater is lacking. So, villages as
well as Coḷa monuments are widely separated from each other. The area never
was the centre of an important dynasty. It should rather be regarded as the
battlefield of all the great South Indian powers in turn defeating each other.
The conquerors used to give a more permanent character to their campaigns here
by building temples in their names. The first great defeat of a Coḷa ruler also

took place in this region. This happened to the "invincible" king Parāntaka I, "harbinger of bliss and progress", who was beaten devastatingly in the 42nd year of his reign — A.D. 949 — by the even more invincible Kṛṣṇa III of the Rāṣṭrakūṭas. After that the entire area came under their influence for some thirty years.²¹ Only about A.D. 970 would Uttama Coḷa recapture the lost territory.

In view of all this it is obvious that Tañjāvūr may well have been the centre of Coḷa culture as early as the reign of Āditya I. Moreover, irregularities in the distribution-pattern of temples with regard to height and/or size in the Kāverī area can be explained as relics of Pallava influences which must have extended considerably to the south. However, these irregularities could also be the result of the socio-economic position of a settlement in relation to the Coḷa capital.

We assume that the position of a settlement in the bureaucratic hierarchy played a role in the composition of its temples. This assumed relation can be established through a careful study of inscriptional evidence, because the present size of the villages in Tamil Nāḍu makes it hard to believe that they were once bustling and economically prospering towns as the overwhelming presence of their far too large temples might seem to suggest. In the records a distinction is often made between ordinary villages, brahmin settlements and merchant towns, the ūr, the caturvēdimāṅalam and the nagaram respectively.²² Unfortunately, the terms are applied without consistency, or perhaps the meaning of the terms changed in the course of time, so we cannot use this typology as an explanation for specific distribution-patterns.

On the other hand, it seems likely that temples located in the nagarams will distinguish themselves from those in the ūrs because merchants indeed have more contacts with people from beyond the immediate neighbourhood of the village, which means that, theoretically, they would be more open to alien ideas, or could even be the medium through which new ideas were introduced. Merchant towns, moreover, are on the whole more prosperous than farming communities, so they are able, again theoretically, to spend more on the embellishment of a temple. Although we are not in a position to provide a map on which all types of settlements are indicated due to the absence of reliable inscriptional evidence, a single deviation in an otherwise uniform distribution-pattern can occasionally be connected with the former existence of a nagaram in that particular locality, assuming that there were far more ūrs and caturvēdimāṅalams than nagarams.

However, irregularities or anomalies can also be related to the social status of the founder of a shrine who's name occurs occasionally on the walls of the temple.²³⁾ The persons mentioned in such inscriptions are in the first place kings, their spouses, sons and daughters. In addition there was a certain illustrious category, such as generals who successfully assisted their king in his campaigns and had, therefore, become rich, local chieftains and founders of important religious centres. The great differences between the financial resources of royalty and private persons will be demonstrated in the construction-pattern of their temples, since a king is in a better position to commission the construction or renovation of a temple than a general, a minister or a priest, because his purse will not be empty after financing a campaign. He will most probably have had a court-architect who – in times of military successes and of prosperity – was permanently employed. For this reason these temples – though possibly widely distributed – would show greater similarity than shrines financed by commoners, even if the latter occur, within a rather small area, because it is less likely that they were designed by the same person.

As a rule temples built by a royal person will be larger and taller than those commissioned by wealthy citizens. Since size and height are related to the financial means of either king or citizen, we shall now survey the changes in the prospects of the Coḷas and their people during the first two centuries of their history. Only then we might be able to attribute size and/or height of a temple to a particular period.

Periods of prosperity and decay.

As indicated in the previous paragraph, the various phases of provincialism in the development of the Coḷa style can be linked up with periods of political development. The Coḷas have known more times of prosperity than of decay. The whole period is normally divided into three phases.²⁴⁾

The first phase is usually taken to start in A.D. 850, the year in which Vijaya had probably consolidated his realm around the town of Tañjāvūr. It ends ca. A.D. 940, although Parāntaka I suffered his first great defeat ca. A.D. 949. The kings ruling during this period are:

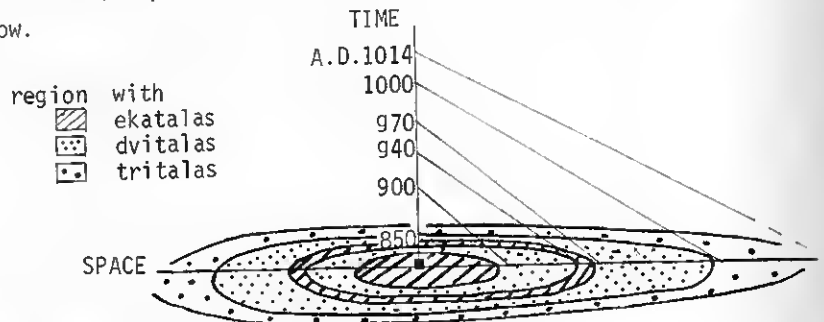
- Vijaya (c. A.D. 850-871)
- Vijaya II (A.D. 871-907)
- Vijaya III (A.D. 907-955)

The second phase embraces about 30 years between A.D. 940 and 970. This period is characterized by bitter succession disputes among the sons and

nephews of Parāntaka I. The most radical of all was Uttama Coḷa, who removed one of the two remaining pretenders to the throne — Āditya II — by the sword. He owed his throne mostly to the "true nobility" of the youngest descendant of this famous family, Arumoli, later known as Rājarāja I, who dropped his sword to the throne on the condition that his uncle Uttama would appoint him successor after his death.²⁵) The kings wielding power for a shorter or longer period during these tumultuous times, are:

Gaṇḍarāditya	(A.D. 949-957)
Ariñjaya	(A.D. 956-967)
Sundara Coḷa (Madurai-Koṇḍa)	(A.D. 956-973)
Āditya II (Pārthivendra Karikāla)	(A.D. 964-969)
Uttama Coḷa	(A.D. 969-985)

The third phase starts only after Uttama Coḷa had consolidated his power, i.e. around A.D. 969/970. It is usually taken to end with the death of Rājarāja I in A.D. 1014. The first and third phase can each be subdivided into periods of rise, of efflorescence and of diminishing prosperity, because it is likely that a temple style develops only during a long and prosperous period. We can, therefore, expect a development of height and size as shown in the graph below.



Comparing this graph with the actual distribution-patterns of height and size as shown in maps 5 and 6 we can infer that they tally as far as height is concerned, for the central part of the Kāverī delta is, indeed, characterized by ekatalas. However, the distribution of tritalas as well as that based on number of niches indicate in the first place that the influence of the epistyle must have reached its periphery about A.D. 1000 as the really tall constructions are found in the centre of origin. In the second place we see that the size of the monuments does not show a similar pattern, for the number of niches does not diminish in the middle of the 10th century but continued to increase. In the following paragraph we shall try to relate this alternate development to changes in religious concepts during this period.

Development of Śaivism in Coḷa society.

From early days, religion was an integral part of all aspects of social life. A function of a temple in a Coḷa community was not only to be the centre of worship, but also to be the seat of justice and of the village council. At the same time, the temple compound could be used for educational purposes (see also report, 26)

Early shrines did not have these social functions from the very beginning. At a time when the abode of the deity was not much more than a place where people gathered spontaneously to worship a certain manifestation of the divine — could be a tree or a large rock which rose mysteriously out of the ground in the shape of a liṅga. People also flocked to the birth-places of the founders of the reformed religions, Śaivism and Vaiṣṇavism, or to the places where they were believed to have died. In all these localities small shrines were eventually erected. One can hardly imagine that the South Indian temples of today originated from these early primitive shrines. Nevertheless, the development into the immense temple compounds starts, at least in Coḷa, under the first of the imperial Coḷas.

Small shrines — the Tamil word is *koyil* — erected by Vijayālaya, contained a garbhagrha with a somewhat smaller ardhamandapa attached to it. Towards the end of the reign of Rājaraḷa I the mukhamandapa became customary. This was often connected to the ardhamandapa by means of a staircase or a passage called *antarāla*. Detached from the main building, but within the walls of the grounds, were other mandapas or halls serving various ends such as for local government and administration, since the temple had gradually become the largest landlord of the village through countless gifts of land. Not only did the compound become larger so as to accommodate its various increasing functions, its external appearance also changed considerably. The supposedly oldest shrines in the area are completely unadorned and plain. By the time Rājaraḷa I ascended the throne large parts of the walls were occupied by images, portraits of important persons, friezes, garlands and panels. The possible reasons for this development, both social and religious respect will now be discussed.

The temple was not only a collection of halls where certain functions took place, it was also the symbol of God — in South India usually Śiva or Viṣṇu.²⁸⁾ The walls are decorated with the images of the deity. The appearance of the temple therefore reflects the development of South Indian iconography. If new deities are accepted for presentation, then problems arise. For, an

architect cannot go on adding ever more niches in an existing type of temple for more and more figures, at least not if he wants to maintain the balanced proportions which are characteristic of South Indian architecture. When extra space had to be created this could only be done by enlarging the building and/or adding halls, called *maṇḍapas*. During this creative period the Coḷa sculptors added several iconographical forms such as

- *Dakṣiṇāmūrti*. This manifestation of Śiva as god of the south has received a fixed place in the southern niche of the *garbhagṛha* until today. In the course of time the covering of the niche and the decoration of the temple walls directly beside it changed. More and more images were added to the otherwise bare walls. They are mostly ṛṣis, ascetics, royal persons and animals.
- Viṣṇu and Śiva in his manifestation of *Ardhanārī* or *Liṅgodbhava* who can be found in the western niche. Sometimes small images of Viṣṇu and *Brahmā* are standing on either side of *Liṅgodbhava*'s niche.
- *Brahmā*, usually portrayed as an old man with a beard, is standing in the northern *garbhagṛha* niche.
- *Gaṇeśa* and *Durgā*. Images of other deities such as *Bhikṣāṭana* are sometimes installed, depending on the number of niches available. As a rule *Gaṇeśa* is placed in the central niche of the southern wall of the *ardhamaṇḍapa*, while *Durgā* usually stands on the corresponding place in the northern wall.

Along with the increasing possibilities to worship various aspects of Śiva and his consort, a completely different form of devotion seems to lose importance, namely that of the *Saptamātṛkās* and the *Nava-grahas*. Special shrines for these deities can still be found in what are most probably the oldest monuments. However, gradually they were moved to a less prominent place in a *maṇḍapa* or elsewhere and became images without a proper home. In later temples it is therefore no longer possible to decide whether the *Saptamātṛkās* and *Nava-grahas* were included in the temple ritual at the time of the construction of a particular shrine, because the proof of their existence may have been removed from the temple.

Although the developments in iconography could show a chronologically and most probably a geographically interesting pattern, it is difficult to arrange the temples according to the presence or absence in the niches of the images just mentioned, including whether or not they are accompanied by other figures. Due to kleptomania and sheer rapacity, past and present, such an investigation into the Coḷa contribution to South Indian iconography is virtually impossible. If the sculptures happen to pass into the hands of bonafide travellers, they may end up in museums, but more often than not without an indication of their provenance.

In view of the above mentioned uncertainties with regard to the iconographical development, a structural development can only be deduced on the basis of the number of niches belonging to the original concept of a temple.

The existing pantheon in the Coḷamaṇḍalam.

The initial stage of the iconographical development in the Coḷamaṇḍalam must have occurred during the Early Coḷa period, i.e. between A.D. 850 - 1014. For, the earliest structural monuments of the area — coinciding with the territory of the Cholas — do not have niches, whereas the walls of the huge Rājarājeśvara temple at Thanjavūr are almost completely covered with images in well-prepared devakoṣas. On the other hand it seems strange that the fully developed iconography of the Cāḷukyas and Pallavas — as realized on their temple walls lavishly decorated with sculptures — was apparently not accepted by the Coḷas in the first century of their rule. This is all the more remarkable, as it is known from excavations and reconstructions that in the Deep South already before the 8th century migrating Nāyanārs and Ālvārs preached the concept of Trimūrti, the three-fold manifestation of God, viz. Brahmā, Viṣṇu and Śiva.²⁹⁾

However, Āditya I was an ardent devotee of Śiva, and — very explicitly — commissioned temples to be built dedicated exclusively to this deity. This attitude stands in sharp contrast to that of previous rulers, for the Cāḷukya, Chola and Pāṇḍya kings were more liberal and built sanctuaries not only for the Buddha and the Jina but also caves and temples in honour of Viṣṇu and Śiva.³⁰⁾ It is, therefore, like to suggest that the first decades and perhaps the first fifty years of Coḷa rule were characterized by an atmosphere of intolerance towards three of the most important Indian religions, viz. Buddhism, Jainism and Vaiṣṇavism. Since Vaiṣṇavism had been the main religion of both the Pallavas and the Pallavas and since there is an eternal animosity between Śiva and Viṣṇu with regard to the supremacy of this world and beyond — a conflict which is repeated over and over again in Hindu mythology — it is possible that this conflict was decided on earth temporarily in favour of Śiva by Āditya I and his successors. This implies an enormous reduction of iconographical representations; and so since Vaiṣṇava and Śaiva sculptures were in general closely associated and, moreover, often occurred at one and the same site.³¹⁾

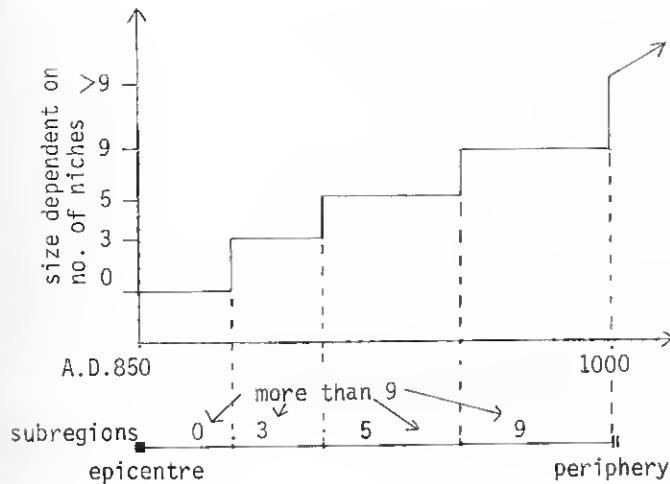
It is possible that the teachers and priests together with the early sculptors had to decide first of all which iconographical representations were pure, and then which positions on the walls these accepted figures had to occupy. As mentioned above (p. 28) the northern wall of Hindu temples is usually

reserved for Brahmā, the western wall for Viṣṇu, whereas the southern wall is occupied by a representation of Śiva. It is, therefore, not surprising that there are several shrines in the Coḷamaṇḍalam which display the most unusual phenomenon of three representations of Śiva in one and the same sanctum, thus occupying the niches normally reserved for Brahmā and Viṣṇu.³²⁾ It is equally clear that throughout the 10th century the image of Liṅgodbhava³³⁾ is placed in the "Viṣṇu" niche, either as a replacement of an older sculpture or as an icon contemporary with the shrine.

Furthermore, there are buildings in which Ardhanārī — the concept of Śiva and his consort united in one figure — is found in the western niche, in combination with a Brahmā and Dakṣiṇāmūrti sculpture in the northern and southern devakoṣṭhas respectively — all three images belonging stylistically to the same set of figures. Apart from Brahmā, the majority of shrines in the Coḷamaṇḍalam have Liṅgodbhava, Dakṣiṇāmūrti, Durgā and Gaṇeśa, the latter two on the walls of the ardhamāṇḍapa (p. 28). There are also ardhamāṇḍapas in which other manifestations of Śiva are exclusively displayed. It is only during the reign of Rājarāja I that a revival of Vaiṣṇavism and Jainism becomes evident, for the sister of this ruler had temples built for Śiva, Viṣṇu and the Jina.³⁴⁾

Consequently, we should recognize roughly two stages in the iconographic and artistic development of the temple walls, which indirectly influenced the structural development of the building. In the first phase a gradual expansion of the Śaiva pantheon took place in which the artist could unfold his talents unimpeded by dogmas. In the second stage every Hindu deity, known from the days of the Cālukyas was given a (fixed) place on the walls of the Coḷa temples. In other words between A.D. 850 and A.D. 1000/1014 Śaiva shrines gradually became larger because the temple walls had to accommodate more and more sculptures. After A.D. 1000/1014 we may expect Vaiṣṇava sanctuaries occurring next to Śaiva shrines, their size becoming increasingly larger.

As a result of this the distribution-pattern as indicated on map 6 seems to indicate that the successive phases of Coḷa architecture coincided with an expansion of Śaiva religion. This diffusion process is illustrated in the following graph (p. 31). Diffusion of Śaivism must have reached its physical boundaries about the end of the 10th century. The distribution of buildings with more than nine niches is, therefore, not restricted to a particular subregion. On the contrary, large temples can occur in each of the old subregions. In general, we can say that the distribution of monuments constructed after A.D. 1000 shows a dispersed instead of concentrated pattern.



Framework of our study

The survey, based on geographical principles, was sufficiently precise to continue further research. For, the distribution-patterns of Coḷa temples with regard to their size and height appeared to show subregions which could be tested within, admittedly, rather rough time limits. However, in order to establish the development of Early Coḷa architecture an accurate description of the monuments is required as well as a more specified picture of the time period in which the variants of the temple features occurred.

Essential temple features to be investigated are — apart from the size and shape of the sanctum as well as that of the hall — the temple base, the shape and number of its pilasters, the composition of its cornice as well as that of its superstructure. All these elements vary tremendously. The reason might be twofold. In the first place, Coḷa architecture probably drew from three different sources, viz. Pallava, Cāḷukya and Early Pāṇḍya, all three occurring in the region surrounding the Coḷa heartland. In the second place, the Early Coḷa architects were almost certainly highly talented and creative persons who not only learned how to adopt and mix alien ideas or techniques but also found new solutions to problems arising from their own society. The result of this would have been the invention of new variants and new combinations of old motifs providing the Coḷa buildings with a typical "Coḷa" appearance.

In order to find our way in the jungle of variants blossoming on almost every monument we decided to start in chapter two with a survey of basic features characteristic of Pallava, Cāḷukya and Early Pāṇḍya architecture. Subsequent to this, we compiled a complete picture of the current opinions with

regard to the characteristics of the Early Coḷa style. These two surveys resulted in a list of features and their variants as given in appendix 5. For reasons to be discussed at the end of chapter two only a limited number of features was further investigated. Each of these features and its variants was then mapped. Finally, the distribution-patterns of these variants were interpreted and compared with the distribution maps based on size and height.

However, we made a distinction between variants related to size and height of a building and those resulting in types of base, pilaster, roof and corbel. The first we investigated in chapter three, the latter in chapter four. The reason for this procedure was simply that in our opinion the number of pilasters carved on one wall is determined by the height of a vimāna and *vice versa* while the number of pilasters and the height of the vimāna determine the shape of its ground-plan. Since we have demonstrated that size and height can be related to certain subregions and rough time limits, their variants such as the number of pilasters and the shapes of ground-plan may show similar space-time bound characteristics. In chapter three we first explained why this assumption is correct. Then we investigated the monuments, each time as localized objects in a subregion demarcated on the basis of one to four essential variants. In this way we were able to date the temples more accurately than the first rough dating of the subregions earlier on would ever allow. Moreover, we compared our conclusions with those of Balasubrahmanyam, Barrett and Soundara Rajan. The results of this discussion are the dates mentioned in appendices 7-11.

Finally, in chapter four we investigated the essence of the Early Coḷa style. Basing ourselves on the results arrived at in chapter three we substantiated the phases in which the Coḷa shrines showed progressive or regressive variations and combinations of variations with regard to height and size. This was done with the help of an inventory of types of base, pilaster, roof and corbel occurring on the dated and not yet dated monuments discussed in chapter three. The result, viz. the discovery of a development in the individual aspects or combinations of temple parts, turned out to be more far-reaching than could ever have been anticipated at the outset of our inquiry. It could well be used as a base for further historical — and eventually geographical — research on the Coḷas as the Early Coḷa temples are really the only securely datable artefacts of the Early Coḷa period.



TO CHAPTER ONE

1974, p.81.

In chapters three and four this practice will be exposed as an incorrect method of dating. See also Dhaky 1971, p.266 note 12, where he stated that epigraphists and historians will better listen to art-historians *in vice versa*.

Diffusion theories and models are normally part of any publication on geographical theories. Good examples are, for instance:

Mr. Kevin R. *Man, Location and Behavior*, chapter five: "Information and Decisions in a Locational Context", pp. 78-99;
 H. H. H. Paul Ward e.a. *Man, Space and Environment*, chapter four: "Spatial Diffusion" as part of the Spatial Structure of Human Behavior, pp. 323- 24;
 H. H. H. Adams and Gould *Spatial Organization. The Geographer's View of the World*, chapter eleven: "Spatial Diffusion: Meshing Space and Time", pp. 34- 51;

H. H. H. Peter *Geography: A modern Synthesis*, chapters 14 and 15: "Flows and Networks", pp. 323- 45, and "Spatial Diffusion", pp. 346- 64 respectively.

H. H. H. Ed. e.a. *Progress in Geography*, Vol. I, chapter four: Diffusion research in geography: a perspective", pp. 119- 57.

Modern research in spatial diffusion is mainly interested in the characteristics of the transmitters, carriers and receivers as these are supposed to be crucial factors in the explanation of spreads. However, in our case transmitters and receivers are rather dim historical figures and the speed of the carrier definitely did not change during our period. We, therefore, refrain from summarizing current opinions in this field of study.

See glossary. Here definitions are given of all Sanskrit terms used in our text.

See for instance SII , XVII, p. iii and no. 227 (A.R. 205 of 1904), p. 83.

The inscription in Ranga I, p. 218 no. 779 (376 of 1909) reports that "The villagers of Marudūr sold to Iraiyanukuḍikilavan the right of taking water for irrigation...through the sluice of the tank in their village for a specified sum of money". This inscription bears the 22nd regnal year of Maduraiakonḍa Parakesarivarman, i.e. Parāntaka I. On p. 220 no. 795 (392 of 1909) we read that it is a matter of "...gift of...land situated below the tank called Rājarājappērēri,...". This record is dated in the 28th year of Rājarāja I. See also Sastri, 1955, pp. 583- 84.

Śaṅkaraśubrahmanyam 1966 p. 81. Here he quotes the Anbil Plates of Sundaraśaṅkara: "the Indra among kings who had great glory and fortune...by whom the row of large temples of Siva, as it were banners of his own victories, lofty and unacquainted with defeat (collapse), was built of stone on the two banks of the river Kaveri from the Sahya mountains (the Western Ghats), inhabited by the lordly elephants whose cheeks dripped with their temple-juice, in-

cessantly flowing even to the ocean, which has the moon playing on the
of its big restless waves".

Since special emphasis seems to be laid on the material, it seems im-
permissible to assume that Āditya I (the Indra) had temples built, com-
ed of granite, at least along the Kāverī.

- 9). Coḷa temples are either ekatalas or dvitalas — except for a few monuments
whereas most of the shrines at Paṭṭadkal, Kāñcī, Biccavolu, Nandi and
samaṅgalam belong either to the tritala or caturtala category (cf. our
dix 3).
- 10). See Cousens, p. 61, where he reports among others, that the Virūpākṣa
at Paṭṭadkal "was built by the sūtradhārī Guṇḍa...the most eminent sūtra-
hārī of the southern country". This seems to indicate that king Vikramā-
ditya II who died ca. A.D. 746, brought the architect to Paṭṭadkal after
he had conquered Kāñcī.
- 11). It has been pointed out that the Pāṇḍya artists were far superior to
the Early Coḷa sthāpatīs. However, in our opinion the former did not
create one structural monument (cf. de Lippe, pp. 159-62, who discusses
a large group of Pāṇḍya cave-temples but only one structural shrine,
which was, moreover, not built by them, as we shall demonstrate in the
next chapter). Consequently, the Coḷas can not have imitated the Pāṇḍya
in this respect.
- 12). See Sastri 1955, p. 653. Sastri reports that for the temple at Tañjāvūr
alone a booty was set aside consisting of among others 500 lbs. of troy
gold, 10,200 kāsus of jewels to the value of 5,100 kaḷaṅjus in money,
50,650 kaḷaṅjus of silver, i.e. over 600 lbs. of troy silver. Rājarāja
also reserved land in Ceylon (and other dominions) which should produce
58,000 kāsus of rice (i.e. in weight 116,000 kalams) and 1,100 kāsus in
cash.
1 kaḷaṅju = a Tamil coin of 58-60.1 grains (Sastri, p. 613).
or a Coḷa coin of 72-80 grains.
1 kāśu = 0.5 kaḷaṅju (Sastri, p. 614).
- 13). See Balasubrahmanyam 1966, pp. 161-162, quoting the inscription 286 of
1911 in which Āditya I is called "... Chola king who over-ran the Tonda-
nadu and the Conqueror of kings with many elephants ...".
See Balasubrahmanyam 1971, p. 4, footnote 1. Here Parāntaka I is called
Kop-Parantaka Madil-Madirai-sidaittu, i.e. destroyer of the fortified cities
of Madurai, or just Parantaka Madiraikonda. Another honorific title of
this monarch was Parāntaka Maduraiyum Ilamum (Ilam = Ceylon).
See Balasubrahmanyam, id., p. 105. The surname of Parāntaka II — the grand-
son of Parāntaka I — was among others Sundara, which induced Balasubrah-
manyam to write that he (Parāntaka II) "...seems to have quite surpassed Coḷa
in beauty and therefore received the name Sundara". Furthermore he "...
equal in prowess to the destroyer of the three cities, i.e. Siva...", and
"...had the quarters filled with heaps of sharp and pointed arrows sent
forth from his beautiful bow and caused to flow manifold rivers of blood
springing from the high mountains, i.e. the enemies' elephants cut asunder
by (his) sharp sword". Sundara Coḷa also fought against "...Vira Pāṇḍya"
who was forced to flee and climb the peaks of the Sahyadri Mountains (the Western
Ghats) for refuge". Therefore Parāntaka II is usually called Parāntaka II
Madurantaka. Since he "...died in the Golden Palace (Pon Maligai Tunjina)
at Kāñcī (p. 106)" — an indication that the empire had again reached its
borders, lost to the Rāṣṭrakūṭas during the final years of Parāntaka I —
also became known as Pon Maligai Tunjina Devar.

Basubrahmanyam, id., p. 149, where Āditya II - the son of Parāntaka - is described "...as a lions cub playing sportively with a rutting, mad bull (i.e. the Vira Pandya) proud of its strength." He assumed the title Pāṇḍyan talaikonda Parakesari.

Sastri 1955, p. 470 assumes the existence of a Department of land-revenue. Basubrahmanyam 1966, pp. 175-76:

"This central office of control over the whole kingdom was carefully distinguished from the local offices which were accountable to it...". "There are...supervisors who were the agents of the central department of control and audit, maintained as a check on the officers of the various departments in each locality".

In relation to temple affairs Sastri reports on page 471: "The duties of revenue officers included...regulating the receipts and expenditures of temples or helping local authorities to do so. They audit the accounts of temples and take steps for the prevention of embezzlement."

The central government could also come to the aid of local authorities as appears from an inscription of Rājārāja I: "...persons...were slack in the payment of dues assessed upon them by the village authorities... The dispute became a long drawn affair, and the whole subject went up to the king for his decision...". This was "issued by him at his capital, Tañjāvūr, and applicable to the Cōḷa, Toṇḍai and Pāṇḍya countries...". (Sastri, 1955, p. 123).

Basubrahmanyam 1971, p. 213 described this supposed course of affairs in reverse: "While my i.e. Kṛṣṇa III glorious and victorious army is engaged at Melpadi for the purpose of creating livings out of the provinces of the southern region for my dependants, of taking possession of the whole property of the Lords of the provinces, and of erecting temples ...".

Sastri 1955, p. 653: "He (Rājārāja I) set apart lands in several villages throughout his dominions, including Ceylon, yielding an annual income of 1,000 kalam of paddy...". "...four hundred hetāerae were impressed from among those of the other temples in the country"... were set apart further for the maintenance of as many as 212 menservants comprising dancing masters, musicians, drummers, tailors, goldsmiths, accountants and so on."

An example of the difficulties which may arise can be deduced from the following inscriptions: Ranga II, p. 1246 no. 86, 295 of 1908. In this record Kakkaliṭṭattai is described in the 22nd regnal year of Parakesari, as "...Vēmaṇārāyana, a cāturvēdimāṅgalam, a dēvadāna, a brahmadeya in Vaḍagarai i.e. the northern bank of the Kāvērī". At the time of Rājendra I the same village is called Vēmbarrūr, alias Sōḷamārttāṇḍa, a cāturvēdimāṅgalam, a brahmadeya in Maṇṇināḍu, a subdivision of Vaḍagarai-Rājendra-siṃha-Valanāḍu. See also SII, Vol. XII 1943, Appendix C: "Important Geographical Divisions mentioned in the inscriptions", pp. 174-179; and further Sastri 1955, p. 165.

Basubrahmanyam 1971, p. 216 reports that Parāntaka built a memorial temple over the ashes of Āditya I, and on p. 214 that Rājārāja I established the Ariṅḡigai Isvarattu Mahadevar some time before his 29th regnal year (A.D. 1014) "as a pallippadai ... where the mortal remains of Ariṅḡigai deva were buried".

The publication by Sivaramamurti 1961, on Kalugumalai and other Early Chola rock-cut shrines was the only source of information for more than ten years. It was complemented by K.R. Srinivasan only in 1971 and by Sastri in 1978.

- 19). This becomes manifest when we see how they either married off their daughters to each other, or - in a less peaceful way - fought their battles on each other's territory (see Sastri 1966, p. 174, the battle of Idavai, on the north bank of the Kāverī, between Vijayālaya and the Pāṇḍya king Varagunavarman; p. 175, the battle at Śrīpuraṁbyam near Kumbakonam between Āditya I and the Pallava ruler Aparājita and his Gaṅga vassal Prithvīpati I; p. 176, the battle of Veḷḷūr south of the Vaigai between Parāntaka I and the Pāṇḍya monarch Māravarman Rājasimha II whose ally was the Ceylonese ruler Kassapa V; pp. 179-180, two battles in which Sundara Coḷa recovered the lost provinces from the mighty (=Vira) Pāṇḍya; p. 181, the invasion of Ceylon by Parāntaka II and the destruction of Anurādhapura by Rājarāja I).
- 20). See Sastri 1955, p. 112; Dhaky 1971, p. 264.
- 21). Sastri 1955, pp. 131- 34. On this occasion Kṛṣṇa III received the title Tañjaiyum-Koṇḍa.
- 22). "Many of these agraḥāras of mangalams were created by royal grants. Faith in the unique merit of the gift of land (bhū-dāna) was very common. Thus it came about that new colonies of pious and learned Brahmins were settled in different parts of the country and gained control of local affairs through the Sabhā and its executive." Sastri 1955, pp. 492-493. The merchant guilds controlled - at a certain stage - the activities of artisans (Soundara 1978, p. 17).
- 23). See Balasubrahmanyam 1971, pp. 173-74.
- 24). For a short summary see also Sastri 1966, pp. 173- 86.
- 25). Sastri 1955, pp. 157-159. Here Sastri describes the very dubious role of Uttama Coḷa with regard to the murder of Āditya II. The inscriptions bearing this affair have been kept vague on purpose: "The Tiruvalangadu plates seem to gloss over the story on purpose." The empire was in pieces. Kṛṣṇa III possessed Tonḍaimaṇḍalam, South Arcot was in the hands of the feudatory Siddhavaḍavan (this is Narasimhavarman, chief of Mīlāḍa)" (see p. 151). The Pāṇḍyas, on the other hand, held their own (see p. 156).
- 26). Balasubrahmanyam 1966, p. 23-34; and Sastri 1955, pp. 131- 34.
- 27). The numerous inscriptions which report a "gift of land", the profit of which had to serve for the maintenance of brahmins, the daily burning of an oil-lamp in the temple etc., show that the shrines must have obtained immense property in the course of centuries. An example of such a record is 247 of 1911 (Ranga II, p. 1239 no. 49), where it is reported that in the 4th regnal year of Parakesari, a merchant from Nandipuram donated land to the temple for feeding a brahmin.
- 28). Kramrisch, 1946, pp. 135-137, 143.
- 29). Sastri 1955, pp. 635-643, cf. Soundara 1978, pp. 159-161, Fig. 5 at the end of the book. In South India the period between the 7th-9th centuries is characterized by a nebulous stage of polytheism in form and syncretism in thought (Soundara 1978, p. 47). The following development of religious Hindu doctrines and their corresponding iconography might be applicable to this part of India, although it should be realized that nothing is known about its impact on the people. Until the 7th century the Śiva-Maheśvara cult was *en vogue*, including iconographical concepts such as Dakṣiṇāmūrti (southern variant of Lakulīśa), Liṅgodbhava (=Agni Rudra) (Soundara 1978, pp. 38-40). During the 7th-8th centuries Viṣṇu and

Siva were of equal status. There was a recession of Brahmā, whereas Durgā and Kārttikeya or Subrahmanya were included in the pantheon as subsidiary deities (Idem, p. 40). During the 9th century paridevatās including the Saptmātrkās became "popular" (Idem, p. 40). The Viṣṇu cult (8th-9th centuries) was non-polemical and non-sectarian. Durgā (Viṣṇu-Māyā or as Mahiṣāsuramardini). Hari-Hara and Nārāyaṇa were often depicted (Idem, pp. 42-43). The Nāṭarāja cult stems from the days of Parāntaka I (Idem, p. 41).

The early Čālukyas (of Bādāmī) were of the Vaiṣṇava persuasion (de Lippe 1978, p. 133). They constructed numerous Vaiṣṇava sanctuaries next to relatively few Brahmanical and Śaiva monuments (Mahākut, Paṭṭadakal). The iconographical representations of Siva and his consort - as preferred by the Čolas - were one way or the other depicted in Čālukya shrines at Aihole, the caves at Bādāmī and the large structural buildings at Paṭṭadakal. The first Pallava king was Simhaviṣṇu, his son a convert from Jainism. In the 7th century Kāñcī was a centre of Jainism, Buddhism and Brahmanical learning (de Lippe, p. 148). The Pallavas created in equal measure sanctuaries for Viṣṇu and Śiva throughout their vast empire. The early Pāṇḍyas (of Madurai) were tolerant towards Buddhism and Jainism. Their cave temples are dedicated to Siva and the Jina, although there are a few Vaiṣṇava sanctuaries. It is interesting to note that pre-Aryan deities survived and were identified with Durgā and Subrahmanya or Kārttikeya (de Lippe, p. 159).

Vaiṣṇava caves nos. 1 and 3 at Bādāmī; the Piravātaneśvara at Kāñcī, the Kōre Temple at Māmallapuram.

1. Soundara 1978, p. 112, de Lippe, pp. 171- 72.

Īśodbhava is the manifestation of Śiva in the form of a gigantic liṅga from which an anthropomorphic Śiva looks at the observer through a vertical opening. The theriomorphic representations of Brahmā and Viṣṇu are very small in proportion both to the liṅga and to Śiva and seem to float somewhat helplessly around the liṅga. In this context the liṅga also represents the world and the universe over which Śiva established his supremacy.

Nāṭarāja I's sister Kundavai had temples built for Śiva, Viṣṇu and the goddess at Dadapuram c. A.D. 1006. See also Soundara Rajan 1978, pp. 28-37,



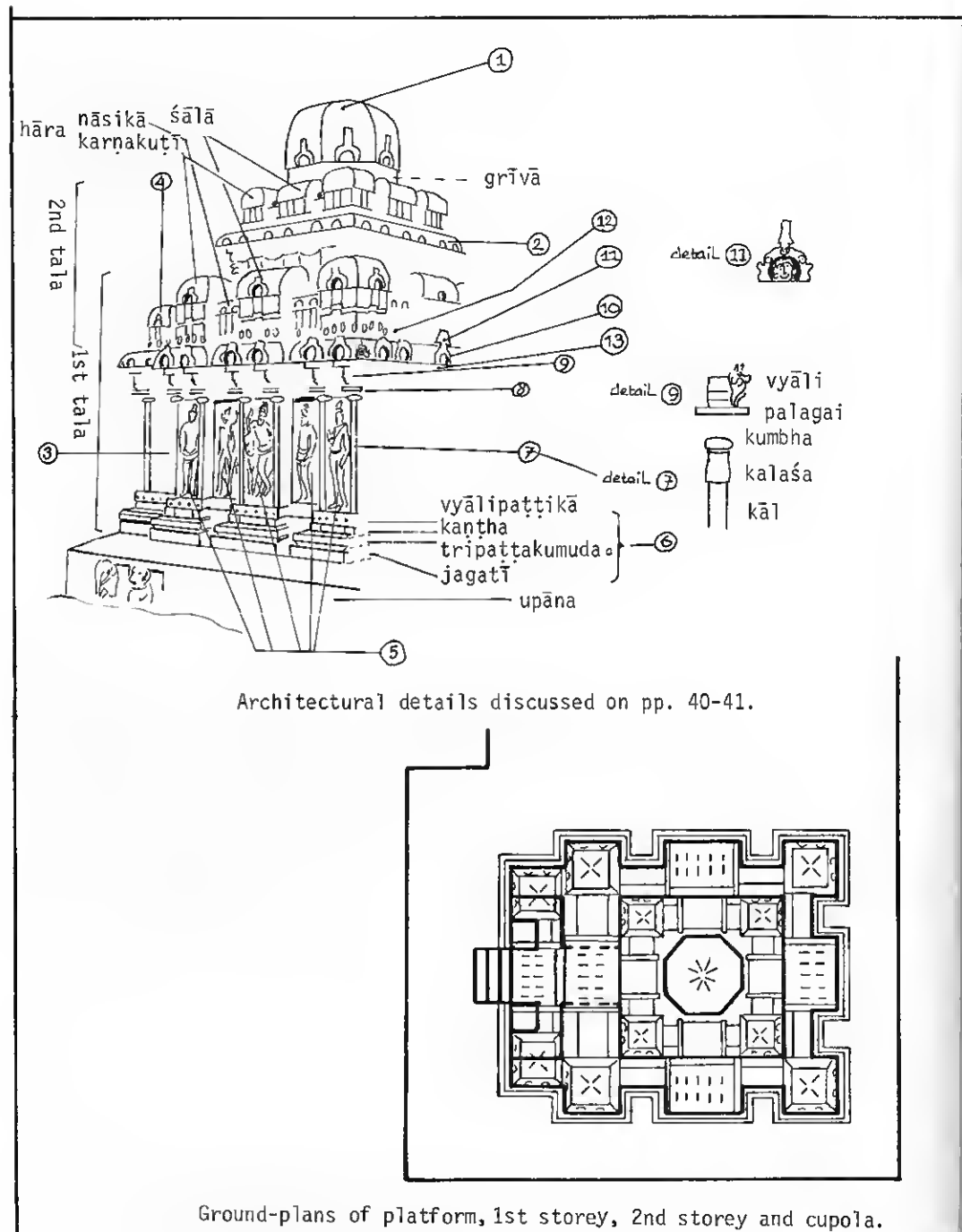


Fig. 2. Arjuna Ratha, Mamallapuram. Architectural details and ground-plans.

Chapter two

The Early Coḷa style : a product of a marriage à trois ?

1. Characteristics of pre—Coḷa architecture

1.1.Characteritics of Pallava architecture.

For good reasons Pallava architecture has attracted a great deal of attention. Time and again it is surprising to discover that the Pallavas produced such a multitude of new artistic ideas in a rather isolated area, off the main stream. Since most of their monuments are cave-temples and rock-reliefs, nearly all publications deal with the sculptural aspects of the Pallava style. However, they also designed free standing shrines. Being more excavators (of caves) and sculptors than architects they used some immense granite boulders for experiments with the shapes of their structural shrines-to-be. Although scholars from all over the world were and still are fascinated by these rather unusual examples of "architecture"¹⁾, and perhaps even more impressed by the two huge structural temples at Kāñcī — the capital of the Pallavas — built of a yellowish sandstone, the published descriptions of these monuments are hardly suitable for our purpose, the emphasis being entirely on either their sculptures or their history. We, on the contrary, are more interested in the shape of the buildings and the way in which their individual components were designed. Consequently, it seemed necessary to review as accurately as possible some examples of minor Pallava temples of the same size as the Coḷa shrines. For this purpose we selected two small koyils, in the first place the Arjuna Ratha, a rock-cut monolith at Māmallapuram, hewn out in the early 7th century and secondly an example of a structural shrine called the Piravātaneśvara, made of sandstone and partly standing on a granite base in the outskirts of Kāñcī. It was built between A.D. 700 and 728.²⁾ In order to cover the entire Pallava

period we decided to include in our survey the Shore temple at Māmallapuram and the Kailāsanātha at Uttaramallūr. Moreover, each distinctive phase in Pallava architecture is, among others, represented in appendix 3.

The Arjuna Ratha (Pl. 1, Fig. 2).

This wonderful small monument was chosen because its ground-plan is similar to that of many Coja temples. The other monoliths at Māmallapuram have ground-plans which are not found anywhere else in South India, except for the Sahadeva Ratha, which has an apsidal layout. The Arjuna Ratha has the following characteristics:³⁾

1. an octagonal sikhara;
2. a grīvā-platform supporting — apart from the śikhara — a hāra consisting of four śālās, and four karṇakuṭṭis and double nāsikās in between these aedicules;⁴⁾
3. an ardhamandapa with an open front and with side-walls without niches or any other form of decoration;
4. a hāra extending over the ardhamandapa;
5. five mock-niches per vimāna wall. The term mock-niche is used here because the niche-pilasters are missing, as is the makaratoraṇa. The Draupadī Ratha next to the Arjuna Ratha, on the other hand, does show the makaratoraṇa. This indicates that the Pallavas were familiar with this type of ornament (cf. Pl. 3) as early as the 7th century (cf. Pl. 3);
6. an adhiṣṭhāna resting on an upāna-platform and consisting of a jagatī, tripaṭṭa kumuda, a narrow kaṇṭha and a paṭṭikā, which — judging from the holes under the three protruding parts of the vimāna wall — were probably decorated with loose vyālis;⁵⁾
7. very slender, bevelled pilasters with a clearly observable kalaśa — although the padmabandha is lacking — topped by a kumbha;
8. a palagai which is rather wide when compared with the pilaster;
9. rearing vyālis on top of the palagai flanking so-called roll podigais;
10. a kapota which slants down rather steeply, while its corners are decorated with koḍikkarukkus;
11. horseshoe-shaped kūdus on this cornice crowned with a shovel-like top and framing smiling faces;
12. a vyālivari above the kapota. These mythological animals are located in functional places, although they give the impression of being strung in rows, due to the small but regular distances between the floor-joints visible under the pilasters of the kuṭṭis and śālās. In the Nakula Sahadeva Ratha these joints were never finished, so the gradual process from

- point to vyāli can indeed be assumed;⁶⁾
- the frieze of bhūtagaṇas under the kapota;
- a ground-plan consisting of three protruding parts and two recesses per wall;
- an ardhamandapa which is narrower than the vimāna and directly connected to it.

Piravātaneśvara (Pl. 2).

A broad outline of this structural building is similar to the Arjuna Ratha. However, the perfection with which the craftsmen sculptured the Arjuna Ratha has disappeared during the intermediate century. Especially the pilasters of the Piravātaneśvara are inelegant blocks. Possibly the immense work on the two great temples of Kāñcī had skimmed the potential of craftsmen so that for the less important shrines only the less skilled artisans or merely the apprentices were available. On comparing the Piravātaneśvara with the Arjuna Ratha the following differences can be noted:

- 1. there are mock-niches formed by means of two pilasters. The wall between these two pilasters automatically becomes a "niche" (cf. Pl. 1 and Pls. 2-3);
- 2. a lintel is suspended between the two pilasters;
- 3. an akaratorāṇa has been squeezed in between the lintel and the uttira which has no bhūtagaṇas;
- 4. the palagai is substituted by a kumbha in a triangularly shaped block which widens into the pilaster;
- 5. the kālās on the corners are supported by rearing vyālis;
- 6. divārapālas and worshippers are depicted between the pilasters;
- 7. on the walls of the ardhamandapa mock-niches are carved out;
- 8. the grīvā-platform has no karṇakuṭīs.

Skore Temple at Māmallapuram (Pl. 4).⁷⁾

This shrine provides a few more interesting details deviating from the monuments discussed above. It was built between A.D. 700 and 728 of a coarse, grained granite which erodes easily. The adhiṣṭhāna consists of several elements: a prastara moulding instead of a jagatī, a tripaṭṭa kumuda, a kaṇṭha with a vyālivari, a second kaṇṭha with a lotus-vari over it.⁸⁾ The vyālis on the prastara are placed in rows and at a small distance identical to that between the vyālis of the kuṭīs and śālas of the hāra. The grīvā-platform has four seated gaṇas instead of a hāra. The kapota shows circles along the bottom-edge.

The Kailāśanātha at Uttaramallūr (appendix 3, no. 6).

This monument is the last representative of the Pallava style⁹⁾. It is curious for

three reasons, viz. the decoration of the base is kept to the minimum, the pilasters are plain and the mock-niches have developed into a kind of real deva-koṣṭha with half-size niche pilasters and a lintel which is raised slightly over the palagais. The monuments at Kambadahalli, Narasamangalam and Nandi display some features which point to Pallava influence. Although they are located in the Western Gaṅga tracts to the northwest of the Coḷamaṇḍalam, we have included them in appendix 3.

1.2. Characteristics of Cāḷukya architecture.

In dealing with Pallava and Cāḷukya monuments, Soundara Rajan stated that the Cāḷukya style may be described as an "elemental emotion, soft and sensuous modelling and a graceful combination of apparel and jewellery". The Pallava style on the other hand, stands out as "more sedate, of compressed modelling and with sparse drapery (where outlines alone are emphasised) and ornamentation".¹⁰⁾ Furthermore he remarked that the "supple sandstone" (available in large amounts in Karnataka) and the "grim granite" (of Māmallapuram) played a decisive part in those styles, as did the "local ethos".¹¹⁾

Apart from the fact that these words present a very personal and ethical opinion, one wonders where these emotions and this modelling originated. Soundara Rajan did not go into this and only mentioned a number of partly architectural, partly sculptural features and innovations, typical for Western and Eastern Cāḷukya architecture (Pls. 5-9). They are:

1. the Western Cāḷukya temples often have a so-called sloping roof. This feature can be explained from climatological circumstances, i.e. heavy rainfall;¹²⁾
2. nearly all monuments have trellised windows consisting of sandstone slabs placed in the first tala of the double-walled sāndhāra temples in order to transmit light. These beautiful windows were imitated by the Bāṇas, the Western Gaṅgas and the Eastern Cāḷukyas in their later buildings;¹³⁾
3. vyālivaris as prastaras have been placed above kapotas;
4. some monuments show a śukanāsa projecting in front of the superstructure. This idea was not copied by the Eastern Cāḷukyas;
5. there is an obvious preference for the simple, vertically slanting padma-course instead of a rectangular jagatī;
6. a kapota is used as the top-layer of the adhiṣṭhāna instead of a paṭṭikā which occupies this place in Pallava, Coḷa and Pāṇḍya architecture.¹⁴⁾
7. square liṅga-piṭhās are preferred. Among the Rāṣṭrakūṭas — ruling in the same area after the collapse of the Cāḷukya empire — they were round and we meet these again in the Śiva kōyils of the Muttaraiyars, the Irukkuveḷs, the

- 10. talas and the Pallavas. The Eastern Cālukyas and the Pāṇḍyas continued to erect square līṅgapīṭhās;¹⁵⁾
- 11. the vimānas are mainly of the Nāgara variety; with this Soundara Rajan means that the śikhara has a square ground-plan.¹⁶⁾ This layout is again dominant in the region of the Irukkuvels and in the northern Pāṇḍya zone;
- 12. the talas of the superstructure are of the arpita variety, i.e. the hāra is attached to the tala walls and not — as with the Pallavas — separated from it (anarpita) so that the pradakṣiṇa could be performed;¹⁷⁾
- 13. among the sculptures on these temples, the mithunas form the largest category;¹⁸⁾
- 14. the icons were carved out *in situ* in stone blocks meant for that purpose.¹⁹⁾ This is illustrated by the unfinished walls of the Sangameśvara (Pl. 7). There was obviously insufficient time or money to carve the rough blocked-out surfaces into images, as was done on the walls of the Virūpākṣa temple at Paṭṭadakkaḷ (Pl. 5);
- 15. in the Western Cālukya temples the parivāradevatās are lacking with the sole exception of the Virūpākṣa shrine;²⁰⁾
- 16. the lintels of the doorframes are striking on account of their elegant ornamentation and friezes. The Pallava lintel, on the other hand, is plain;²¹⁾
- 17. until the Rājasiṃha period, Gaṇeśa images are unknown in the Pallava area, whereas they are indeed frequent in both the Western Cālukya and the Pāṇḍya temples.²²⁾

Especially aspects 2, 3, 6 and 13 are purely individualistic contributions of sculptors trained for centuries in shaping the interior of cave-temples and monasteries. So they were ahead of the architects, who had to design and build a structural temple for the first time. Soundara Rajan here used the nice image of turning the cave temples inside out.²³⁾ The inside lining becomes, so to say, the proper, outer side. The sculptor could continue his work in the open air while the material remained the same. Not only "elemental emotions" spurred the sculptor on to creating continually new decorative elements, his training in working the "supple sandstone" which had lasted for centuries did so in equal measure. However, this does not change the fact that the Western Cālukya temples and their images are indeed more elaborately decorated with ornaments than those of the Pallavas. According to Cousens Cālukya art can be described as "An exuberance of lace-like carvings, ... all elbowing each other for room".²⁴⁾ Even better than in words, he demonstrated the characteristics of Western Cālukya shrines by means of excellent engravings. One example is that of the plinth of the Mālegiṭṭi at Bādāmī.²⁵⁾ This shrine could well be the

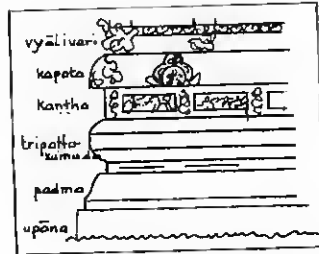


Fig. 3 Mālegitti Śivālaya, Bādāmī. Detail of plinth.

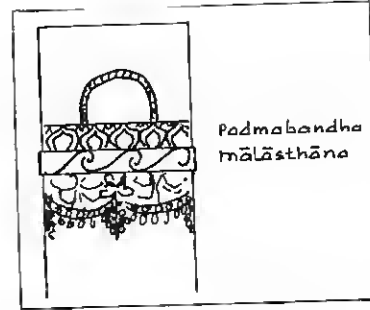


Fig. 4 Lād Khān, Aihole. Detail of pillar.

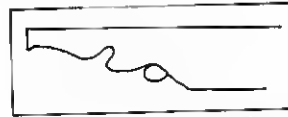


Fig. 5 Lād Khān, Aihole. Detail of podigai.

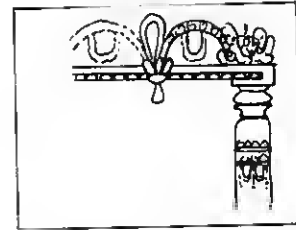


Fig. 6 Mālegitti Śivālaya, Bādāmī. Detail of makaratoraṇa.

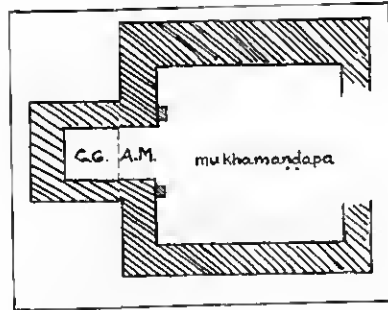


Fig. 7 Ground-plan of a Cālūkyā temple showing garbhagrha (GG), ardhamandapa (AM) and mukhamandapa.

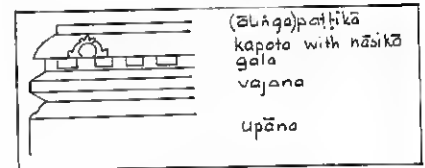


Fig. 8 Rājarājeśvara, Biccavolu. Detail of adhiṣṭhāna.

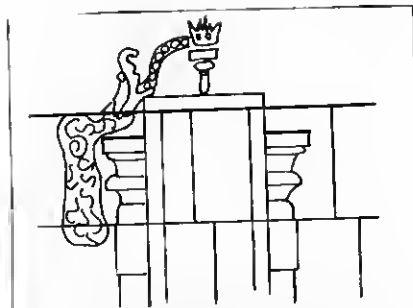


Fig. 9 Rājarājeśvara, Biccavolu. Detail of niche and makaratoraṇa

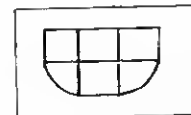


Fig. 10 Rājarājeśvara, Biccavolu. Podigai.

earliest to be constructed by the Cālukyas in this area (Pls. 8-9). Stylistically, this building resembles the Meguti at Aihole and the monuments at Māmallapuram, but the Cālukya buildings give the impression of being older. An inscription *in situ* tells us that the Meguti was raised in A.D. 634. It may be assumed that the Mālegiṭṭi dates from about the same period.²⁶⁾

Fig. 3 illustrates the typical Cālukya curves on the jagatī (padma) and the *śūla*, the "straight" profile of which is slightly rounded; they show the regular spacing of the vyālis and the ornamentation of the kapota and the kaṇṭha as well as the beautifully carved padmabandha and mālāsthāna on the otherwise massive pillar.²⁷⁾ The Western Cālukya podigai (Fig. 5) is characterized by an uneven, rather complex roll-pattern. We shall meet "translations" of all these typical Cālukya features on many Early Coḷa monuments.

The Cālukyas did not incorporate a makaratoraṇa in the design of a niche, for this ornament was applied in many other places on the walls of their temples, for instance above the trellised windows and on the connection between the garbhagrha and the ardhamandapa. Moreover, it is normally placed on a lintel with a padmavari which seems to be thrust into the palagai (Fig. 6).²⁸⁾

An ardhamandapa - part of every Coḷa temple - can hardly be noticed in the Cālukya shrines, at least not from the outside. When present, this porch merely consists of the thick walls of the square, large mukhamandapa which are linked up directly with the garbhagrha (Fig. 7). These walls, often one metre thick, are in fact the side-walls of the interior of the ardhamandapa. Consequently, the porch itself is not a separate structural part of the building.

One particular aspect of Cālukya architecture which was not noticed by either Cousens or Soundara Rajan, is mentioned by Srinivasan.²⁹⁾ It concerns the phenomenon that not only the hāra runs along the first tala of both the śikhara and the mukhamandapa, but that in addition to this karṇakuṭīs may occur in the upper tala. The śikhara is of the Drāviḍa type, i.e. octagonal. At a later stage Cālukya shrines were adorned with vāhanas instead of these karṇakuṭīs. The typical corner shrines can be seen among others on the Mālegiṭṭi at Bādāmī (Pl. 8). Another characteristic of these Early Cālukya monuments is "the insertion of two side-shrines in the ardhamandapa...dedicated to Durgā and Gaṇapati."³⁰⁾

Finally, we quote Brown who mentioned as important characteristics of an order in the architectural sense: "...the shape of the tower, ...the general formation of the structure, ...the shrine-like niches on its walls".³¹⁾ The

Drāviḍa order, to which the Cāḷukya style belongs, furthermore distinguishes itself primarily from the Nāgara, or Indo-Aryan order, through the existence of a kind of canopy adapted from a single caitya-arch motif, as illustrated on the Virūpākṣa temple (cf. Pls. 1 and 5). A second feature of this order is "...a narrowing or constricting of the upper end of the shaft where it joins on to the capital".³²⁾

Nothing is known about architectural developments in the Eastern Cāḷukya territory, until about the second half of the 9th century. Contemporary with the Early Coḷa monuments some shrines were constructed at Biccavolu — tentatively dated between A.D. 850 and 950 (Pls. 10-16).³³⁾ So far they have received insufficient attention. We can at best refer to the publications by Rao and Rajendra Prasad. However, their terminology differs from that used by other scholars which occasionally makes it difficult to compare their descriptions with that of the Western Cāḷukya monuments. Beginning with the Rājarājeśvara at Biccavolu (Pls. 12-13), it appears that:

1. its adhiṣṭhāna consists of an upāna, a vajana and a gala cut into compartments by short rafters, a kapota adorned with nāsikās over each pilaster of the gala below and an ālīṅgaṭṭikā (Fig. 8);
2. Gaṇeśa, Kumāra and Kuvera are placed on the walls;
3. the pilasters are capped with a simple, plain bracket capital (Fig. 10);
4. over these extends a bhūtamālā,
5. a kapota with śiṃhamalātā gables crowns the walls;
6. two side-walls project from the eastern wall, containing (on the outside) a semi-makaratorāṇa (Fig. 9) often with riders on the neck of each makara;
7. a vyāli frieze runs over the kapota of this ardhamandapa;
8. there is a row of kuṭīs, śālās and pañjaras built over both the kapota of the vimāna and the ardhamandapa;
9. the sanctum carries a Nāgara śikhara with a śiṃhamalātā on each side;
10. between the kalaśa and the śikhara a double row of lotus petals is carved.

The Golīṅgeśvara is in almost every respect identical to the Rājarājeśvara (Pl. 16). The plinth of this temple has an extra ṭaṭṭa and gala, but, on the other hand, lacks a kapota. Each wall is adorned with five niches; the central one is decorated with a makaratorāṇa.

When comparing the Eastern with the Western Cāḷukya monuments (Pls. 5-16) we notice that in the eastern regions the ardhamandapas protrude considerably more while the makaratorāṇas are hanging somewhere on the walls unsupported by niche-pilasters or lintels. Actually, there is a sort of decorative

picture-frame instead of a niche. Over this the makaras are suspended (Fig. 9, pls.13,14,16). Furthermore it should be noted that the podigai curves without any decoration or throating (Fig.10).

Summarizing, the following features of Western and Eastern Cālukya architecture can be mentioned:

1. a sloping roof;
2. trellised windows;
3. vyālivari and prastara;
4. śukanāsa ;
5. padma instead of jagatī;
6. kapota instead of a paṭṭikā;
7. a square liṅga;
8. a square śikhara;
9. a hāra anarpita;
10. stone, bracket-like slabs showing mithunas;
11. icons as part of the blocks with which the temple was constructed;
12. no parivāradevatās;
13. lintels over niches, but only in the Western Cālukya monuments;
14. Gaṇeśa as a permanent image in the southern wall of the ardhamandapa;
15. an adhiṣṭhāna consisting of upāna, padma, tripaṭṭa kumuda, kaṇṭha, kapota, kaṇṭha and vyālivari;
16. an involuted roll podigai in the West and a smooth, round roll podigai in the East;
17. a mālāsthāna in the West only;
18. makaratorṇas framing niches in the East only;
19. an embryonic ardhamandapa in the West, a small ardhamandapa in the East;
20. karnakutīs on the uppermost tala;
21. a canopy over the niches in later Western Cālukya shrines, and
22. a narrowing kāl directly under the cushion capital (kumbha).

13. Characteristics of Early Pāṇḍya architecture.

Until now, not *one* example of a structural Pāṇḍya temple has been discovered at least not of the period preceding the Coḷas. Therefore, it seems unrealistic trying to discover an "Early Pāṇḍya" structural style. The only information we can use is the description of the unfinished monolithic temple at Kaḷugumalai, the exquisite śikhara of which is assumed to have been sculptured before A.D. 800, i.e. before the Coḷas came to power. Referring the reader to the illustrations in

several publications ³⁴⁾ we see that the following features can be noticed:

1. the śikhara is octagonal;
2. there are nandis on the grīvā-platform;
3. both the śikhara and the kapota have bell-shaped profiles;
4. the kūḍus are large and wide-open, crowned with a splendid śiṃhamukha within a shovel-like ornament;
5. inside the kūḍu-frame appear smiling faces or gable-ends;
6. circles — usually placed along the bottom-end of the kapota — alternate with small squares a few centimetres above the cornice;
7. over the kapota runs a vyālivari. The position of the vyālis does not indicate the outer ends of the floor-joints. Their presence is, therefore, purely decorative;
8. the grīvā-platform is supported by small elephants;
9. under the kapota runs a varying and elegant bhūtagana frieze;
10. the grīvā rests on a floor of which the rim is decorated with lotus-petals and supported by a kaṇṭha with panels;
11. each pilaster has a clear bandha constricting its upper part into a bulbous kalaśa;
12. the palagai is narrow;
13. the hāra represents the anarpita type, at least in its present unfinished state;
14. the koḍikkarukku decorations are exuberant.

Most of the enumerated characteristics in this list occur already in the Cāḷukya temples, but three features attract our attention as they seem typical Early Pāṇḍya contributions to the architecture of South India. These are the profile of both the śikhara and the kapota, the unusual place of the bandha on the kapota where, in addition, circles alternate with squares, and, lastly, a purely decorative vyālivari disconnected from its original function.

Our statement about the non-existence of Early Pāṇḍya structural monuments would seem to be contradicted by Soundara Rajan who believed that almost all Early Coḷa shrines were built by the Pāṇḍyas and their vassals. Since his opinion is highly unorthodox and, moreover, may seem to undermine our thesis we have to go into his theories in more detail.

1.3.1. The views of Soundara Rajan.

In his publication on Early Pāṇḍya, Muttaraiyar and Irukkuveḷ architecture, Soundara Rajan tried to reshuffle the hitherto accepted views by propounding two dissenting theories.³⁵⁾ For us, the most important of these is his denial

the existence of an Early Coḷa style, at least in the period in which it has normally been assumed to have flourished. In the second place he denied that either Pallava or Cāḷukya influence has been of any importance in the architectural development of the deep South. In his view, the only creative force in this area came from the Pāṇḍyas and their vassals: the Muttaraiyar and the Irukkuvel chieftains. However, these ideas are not convincing since the arguments are either incorrect or lacking altogether. First of all we shall deal with the wrong preconception regarding to absence of any cultural influence outside the Pāṇḍya area. Then we shall show that it is impossible to maintain that the Pāṇḍyas must have been the only source of inspiration. Thirdly, we shall explain why the Early Coḷas could build temples in the regions considered from their neighbours, and finally, we shall show that all Soundara Rajan's criteria appear to be unsound, since they are either applicable to monuments or irrelevant to the shrines to which he applied them.

When Soundara Rajan wondered "Why then did the Pallavas avoid a wider use of granite?" he stated that it must have been due to the fact that their workers found it hard to quarry the granite.³⁶⁾ However, we do not share his assessment, for in the first place the Pallava artists were not only able to create impressive cave-temple complexes from granite boulders, but also to sculpture granite outcrops into architectural jewels and to erect seven structural shrines of granite of which the Shore temple at Māmallapuram is unfortunately the only remaining one. Secondly, there does not seem to be an essential difference between quarrying blocks of granite which are subsequently transported from the quarry to a building-site farther off and carve blocks of granite from the cave-temple to be. In other words, in both cases the problem is the same: the granite blocks have to be transported either from a quarry to a building-site, or from a building-site (i.e. the granite outcrop in which the caves were carved) to a place where the waste had to be dumped. It is therefore evident that the Pallavas did participate in the granite technique, for they are particularly famous for their granite monuments. Moreover, it cannot be assumed that structural temples were created only after A.D. 900, since the seven buildings on the shore were erected some two hundred years earlier.³⁷⁾ Another reason why the Pallavas could not have been a source of inspiration to the architecture in the Deep South of ca. A.D. 900 is the fact that they were a spent force by the last quarter of the 9th century and therefore unable to influence the architects of the Pāṇḍyas and the Early Coḷas when they began to erect shrines.³⁸⁾ We admit that there is a time-lag of at least one century between the most glorious period of the Pallava architecture

and the first koyils designed by the architects of Āditya I. However, continuity is not always a necessary prerequisite for the development of a particular style. To cite an example of discontinuity in Europe: the architecture of the Renaissance was inspired by examples of more than 1,500 years ago! To eliminate the Pallava style as a source of inspiration seems, therefore, out of bounds. To eliminate Cāḷukya influence by stating that this culture was based on "soft" rock, is amazing.³⁹⁾ A style is not only determined by its technique and or material, but also by the shape of certain elements which are part of each and every temple, wherever it was built. Take, for instance, the kūḍu, which is found throughout India. It was carved out either in soft stone or in granite, simply because it had to be present. Why then did the Pāṇḍya architects select the Cāḷukya trefoil as crowning element on their kūḍus instead of the Pallava shovel? Certainly not because the "soft" stone trefoil was easier to carve than its granite counter-part.

As Soundara Rajan eliminated these two sources of inspiration he had to find a substitute. According to him the Pāṇḍya cave-cutters were better prepared to design the layouts of a structural temple, because they could excavate so well.⁴⁰⁾ It seems to us, however, that the design and the construction of a cave-temple cannot be compared with those of a structural shrine. To mention some differences: basically, a structural temple has a square ground-plan which often becomes rather complicated when protruding parts are included creating as it were recessed wall-spaces. On the other hand, a cave is usually rectangular. Again, a cave normally has no ardhamaṇḍapa which is indispensable in a structural temple. The manner in which this element had to be connected with the temple was a problem for which different solutions were devised during the Early Coḷa period. A structural shrine has outer walls with pilasters, niches, makaratorṇas and sometimes even pañjaras. The Pāṇḍya caves, however, show none of these elements. Consequently, the Pāṇḍya caves are crude in comparison with the beautifully decorated Cāḷukya caves, famous among others for their richness of sculptural and ornamental details. Soundara Rajan's remark that the Pāṇḍyas were fond of using parivārālayas — an argument which should prove their expertise in structural design — is not very convincing either.⁴¹⁾ These parivārālayas never exceeded the simple, rudimentary form of a plain square, nor did their first tala ever rise higher than the shoulders of an, admittedly, full-grown person. How these stark architectural designs without any decoration and without devakoṣṭhas could have been the inspiration for the very complicated and beautifully decorated Early Coḷa temples is again beyond our comprehension.

Finally, Soundara Rajan stated that "In a similar way [i.e. by way of cross references] the Irukkuvēls (ruling from Koḍumbāḷūr) had also started building structural temples..."⁴²⁾ We would, however, have appreciated to share these references with him, because, the date of the Muvar Kōyil at Koḍumbāḷūr is disputed. It seems imprudent to ignore this controversy by simply stating that the building dates from ca. A.D. 875, while Balasubrahmanyam and Barrett agree that it was constructed around A.D. 950.⁴³⁾

Soundara Rajan's refusal to accept that the Coḷas designed stone kōyils is based on his assumption that they made use exclusively of stucco and brick until the end of the 9th century, as they were apparently farmers in the Kaverī delta.⁴⁴⁾ However, their original home was Uraiyūr, probably located near the town of Tiruchirappalli and in that case near granite quarries.⁴⁵⁾ Soundara Rajan is right, however, in stating that the Coḷas never possessed the plateau country until the end of the 9th century,⁴⁶⁾ but they surely did not need the vast amount of granite of these plateaus for the construction of their rather small, granite temples. In the delta, heart of the Early Coḷa territory, stone cannot have been scarce, since it is surrounded by granite outcrops on its northern and western flanks. This is less than an elephant's hour walking distance from the Coḷa capital. In view of the enormous distances covered by the elephants of Āditya I and Parāntaka I during their campaigns, distance cannot possibly have been a limiting factor in transporting granite blocks.

From the absence of founding-dates on the shrines which were presumably erected by Āditya I, Soundara Rajan concluded that these buildings cannot have been constructed by him.⁴⁷⁾ This is indeed a very poor argument, for in the first place, the only proper conclusion in such a case is that it is uncertain who built the kōyil. To exclude Āditya I from all the possible founders seems unwarranted. Secondly, it was not customary to retain for posterity information regarding the year of the abhiṣeka of a temple and the name of its founder. Of all the more than 200 monuments visited during our field work, only about twenty had this type of information engraved on their walls. If, apparently, it was not customary, why use it as an argument against Āditya I? According to Soundara Rajan Āditya I could not possibly have had time to build any shrines as he had to defend his new frontier way up north between A.D. 890 and 897.⁴⁸⁾ This argument is unfounded, for Āditya I was obviously able to be that far away from his recently conquered territory and, consequently, must have held it firmly. Presumably he left behind a well-organised administration which enabled the architects to continue the work which they had most probably already been carrying out for nearly twenty years. In this light the absence of Āditya I is no argu-

ment at all, since he did not have to be physically present to have these koyils constructed for him. He could even have given instructions while remaining in the field. Parāntaka I, the son of Āditya I, ruled for more than forty years. Nevertheless, Soundara Rajan assumed an astonishing inactivity with regard to the raising of temples, although he can hardly explain the existence of thousands of records in the name of Parāntaka I on the granite walls of numerous koyils. He minimized their importance by assuming that they are either records on shrines built according to the Muttaraiyar-Irukkuveḷ idiom or copies of Parāntaka I inscriptions, originally engraved on the walls of the Muttaraiyar or Irukkuveḷ koyils and replaced on temples raised during the days of Śembyan Mahadevi.⁴⁹⁾ However, we do agree that the presence of Coḷa inscriptions on the wall of a temple does not necessarily imply that the shrine was designed by a Coḷa architect. Soundara Rajan was right when stating that no Pallava influence can be noticed in temples constructed by Muttaraiyar chieftains in their local style, although the inscriptions, of course, mention the name of their Pallava overlords. Nevertheless, certain scholars will no doubt classify such a building as Pallava on the base of its inscriptions. The same is true for the monuments erected by the Irukkuveḷ chieftains when the Coḷas were their suzerains. However, Soundara Rajan's argument lacks consistency when he stated that the Coḷas did not build their koyils according to Coḷa norms, but rather closer if not identical to that of the Muttaraiyars or Irukkuveḷs.⁵⁰⁾ Why allow the Muttaraiyar and Irukkuveḷ architects their locally based, creative freedom, while denying it at the same time to the Coḷas?

Having mentioned all Soundara Rajan's unconvincing arguments, we are not informed about the "Other evidence" which "shows that for the period comprising the latter half of the ninth century and some time after, the above-mentioned tract [i.e. the central Coḷa country and the Muttaraiyar-Irukkuveḷ region] between the tenth and eleventh parallels witnessed no spectacular Coḷa cultural enterprises".⁵¹⁾ Whatever Soundara Rajan was trying to prove, as long as he does give a proper description of the terms Pāṇḍya, Muttaraiyar or Irukkuveḷ style, none of his arguments will ever hold. He distinguished, for instance, seven archetypes, but he described only four (I to IV) in eleven variations (a to g).⁵²⁾ However, none of these four archetypes can be associated with one of the three political forces which according to him ruled the region before A.D.900. In order to demonstrate that his classification is incorrect, we have arranged all information given by him on this subject in our appendix 4. According to him the most prominent parts of the temples to be described are

number of talas, the shape of the śikhara and that of the adhiṣṭhāna. We have to conclude that:

- the Pāṇḍya style is characterized by having square śikharas(Ia);
- the Cāḷukya-Pāṇḍya style by having a square śikhara(IVc);
- the Muttaraiyar style by a round or octagonal śikhara(II), a round or square śikhara(IIIa), a round śikhara (IVa,IVb) or a square śikhara(IVg);
- the Irukkuveḷ style by a square śikhara(IVd,IVf,IVg) or by a round śikhara in case the temple was built by the Coḷas according to the Irukkuveḷ idiom (II Ib,IVe, fig. 2 in appendix 4). Although a classification is meant to identify new objects, we are unable to place a newly discovered shrine in one of these classes mentioned. When it has a square — or a round — śikhara it can belong to at least two subclasses. The classification is only correct in the case of an octagonal śikhara implying a Muttaraiyar building, but then we do not understand what is stated elsewhere in his publication, that the octagonal śikhara is deeply rooted in the south, i.e. in the Pāṇḍya country.⁵³⁾ A round śikhara is definitely a Cāḷukya or Pāṇḍya feature, but it cannot be used to make a distinction between an Early Coḷa or Muttaraiyar shrine. Moreover, we do not understand the essential difference between a small temple(Ia) and an ekatala(Ib), for an ekatala is always small and a small shrine is always an ekatala. The height of a shrine is not a criterion either. All three political powers commissioned ekatalas and dvitalas. Another significant element is the shape of the adhiṣṭhāna.⁵⁴⁾ Although the Muttaraiyar and Pāṇḍya monuments in subclasses Ia and Ib are standing on a base, their shape is not mentioned. Other Muttaraiyar and Irukkuveḷ koyils are standing on adhiṣṭhānas of the types mentioned in the subclasses II and IIIa(cf. II and IVa,IVb,IVf; IIIa and IVg). Type II Ib — a shrine with an adhiṣṭhāna decorated with a lotus moulding and capped by a vyāli — seems to be the only pure, Irukkuveḷ feature. However, only *one* base of this type is found in the Irukkuveḷ area, viz. at Koḍumbāḷūr. The others are located in the Coḷa territory. Moreover, the shrine at Kuhūr(II Ib) has no lotus adhiṣṭhāna and the temple at Valikandapuram has been demolished except for its base.

A few final remarks concerning the inconsistencies within each of the mentioned subclasses should be made.⁵⁵⁾

Type Ia: this class consists of small temples with square śikharas. A remarkable difference can be noted, however, in the designs of their grīvā-niches, which belies the contemporaneity of these shrines (cf. Pls.17 and 18).⁵⁶⁾

Type Ib: this class consists of ekatalas as well. However, the shrine at Kuchchennampūdi clearly proves this statement to be wrong, for the former

second tala is missing. At some time the remnants of the original śikhara were placed directly on the first tala. Fortunately, the archeologists of Soundara Rajan's own department did a very careful job and restored the second tala as far as possible after collecting the missing stones from the surrounding houses and fields, but the śikhara was not replaced.⁵⁷⁾ The monument at Tiruchchātturai also has two talas. We do not understand why Soundara Rajan included these two dvitalas in a class of ekatalas. Had he paid attention to the shape of the adhiṣṭhānas in this group, he would have noticed that their bases are not identical (cf. Pls. 26, 34 and 35a).

Type II: this class consists of three examples. The shrine at Virālūr has a round śikhara on a round platform and a full-fledged grīvā-niche. That at Melatiruppūndurutti has a round śikhara on an octagonal platform and a full-fledged grīvā-niche. The temple at Kannanūr has a round śikhara on a round platform but its grīvā-niche represents a primitive phase in the development of this feature. These facts do not justify the assumption that these three monuments form a separate class, nor do they warrant the statement that the octagon is a major characteristic of this class.

Type IIa: this class is based on only one example which has a round śikhara, although we are told that the class is characterized by a square or a round one.

Type IIb: the three temples in this class are supposed to have a round śikhara and a lotus moulding as part of its base. As we have just noted, the shrine at Kuhūr cannot belong to this group due to its straight adhiṣṭhāna. Moreover, being a dvitala, this koyil does not fit into this class of ekatalas. The second temple is modern from its sockle upwards. Its lotus moulding is a feature characteristic for two other subclasses, i.e. IVd and IVe. Therefore, Soundara Rajan was wrong in extrapolating the other features of the original building from its sockle. The third example is a monument at Lalgudi. According to Soundara Rajan it is a reconstruction in the Irukkuvel style. However, this class does not contain *one* shrine built by the Irukkuvel as he himself admits. So, we wonder which temple could have been the Irukkuvel prototype of this Coḷa reconstruction.

Type IVa: this is a class consisting of dvitalas and tritalas with round śikharas. Two temples are mentioned as examples: that at Nangavaram is a dvitala, but we are not told why it is "distinctively Muttaraiyar". Since the Muttaraiyar style cannot be characterized by a specific height or preference for a specific shape of the śikhara (p. 53), the monument at Nangavaram could be either a Muttaraiyar or an Early Coḷa building, judging by its roof (cf. IIIb

On the basis of its height it could be called Muttaraiyar, Irukkuvel, Pāṇḍya or Cāḷukya. The second example is the Vijayālaya Coḷeśvara at Nārttāmalai. Earlier authors believe that this tritala was built by Pallava architects. It is the only tritala in this region, while, on the other hand, the Pallava area is covered with similar tall monuments. It seems to us that more arguments should be advanced to substantiate the arbitrary grouping of these two temples as one special class.

Type IVb: this class is characterized by a round śikhara, but that at Kēṇam is square! The adhiṣṭhānas of the three shrines involved represent three different types. The shrine at Śēndalai has rafters instead of vyālis; that at Kēṇam has an ordinary straight base (II) and the kōyil at Tiruvaiyārū has a lotus moulding as part of its base. We do not understand why these three temples are supposed to be identical.

Type IVc: this class consists of dvitalas with a square śikhara and a straight base (II). Strangely enough, the monuments at Tiruchchennampūṇḍi and Tiruchchātturai — earlier classified by Soundara Rajan as type Ib — are included in this group. This should be sufficient reason to reject both classes.

Type IVd: this class is characterized by tritalas, but all three monuments belonging to this group have only two stories. The only real tritala has been classified under IVa. Although we admit that it is often difficult to count the tritalas because the hāras complicate the picture, there is a simple check, viz. counting the number of kapotas visible on the superstructure, as these indicate the actual ceiling of a storey. That the Mūvar Kōyil is described as a tritala is really incomprehensible. This monument is one of the most frequently described South Indian koyils of which reproductions can be studied in almost every publication on the subject, including Soundara Rajan's own article⁵⁸. If this is not a special class on account of its tritala aspect, then it must be the combination of a lotus moulding and a square śikhara. The Agastyeśvara at Kilaiyūr does indeed represent this type, but the twin of this monument, standing in the same compound, carries a round śikhara (the only shrine classified as type IVe). These two koyils are supposed to be contemporary and, in our opinion, together prove along with other, similar groups (Kambadahalli and the Depta Sthānas) that the architects were free to choose whatever shape they liked.

Type IVe: this class consists of only one koyil, just discussed, which resembles type IVd except for its round śikhara.

Type IVf: this class contains several dvitalas on straight bases and crowned by square śikharas, but the base at Tiruchchendurai is not straight

and the śikhara at Aṇḍanallūr is not square! According to Soundara Rajan the latter must be a renovation, since "Irukkuveḷs never built circular śikharas".⁵⁵

Type IVg: the monument at Śrīnivāsanallūr is the sole representative of this "group". Its base is identical to that of the shrines at Kiranūr(IIIa) and Tiruchchennampūṇḍi(I or IVc). However, the round kumuda carrying a row of vyālis was a quite common feature on Pallava koyils, as can be seen at Takkōlam in North Arcot and in the Madras museum where remnants of temples from Kaveripakkam in the same district are exhibited. The superstructure of the monument at Śrīnivāsanallūr is a brick construction on a stone first tala. Pallava artists already combined these two materials as the koyils at for instance Takkōlam, Tiruparkadal and Kuram may prove. So, on account of these characteristics the temple at Śrīnivāsanallūr could be considered as an example of a southern Pallava idiom.

In view of the various deficiencies in his classification, Soundara Rajan became by no means credible when he considered the shrine at Tiruppattūr the most substantial and fully developed "Early Pāṇḍya" temple and indeed a landmark in the northern Pāṇḍya country.⁶⁰) Its unique features to which he especially drew our attention, are:

- karṇakuṭīs on the grīvā-platform and
- the combination of a fully developed niche-lintel with a makaratorāṇa. In our opinion these are no proof at all. The first characteristic is of Cāḷukya origin and the second seems to be a flower for which no seed was sown, in view of the presence of the complete niche with lintels, pilasters and makaratorāṇas in an otherwise niche-less style. Furthermore, Soundara Rajan should have mentioned that the presence of a varī and of pañjaras is unique in this region, as is the angular podigai with a throating instead of the normally plain, though angular corbel.⁶¹) None of these elements are incorporated in the design of other shrines built by the Pāṇḍyas and their vassals, except in those which are normally considered to be Early Coḷa and later in date.

To conclude this paragraph one final remark should be made. We agree with Soundara Rajan that a regional norm can be a more stable basis for an analysis of the development of certain style features⁶²), since this is exactly the procedure we intend to follow in our own investigation. His stumbling-block, however, is the fact that he used the concept of a "region" in the wrong sense. A region implies either a political territory or a regional uniformity, based on, for instance, the occurrence of one exclusive variant or element, or on a characteristic association of variables and types. If we try to map the

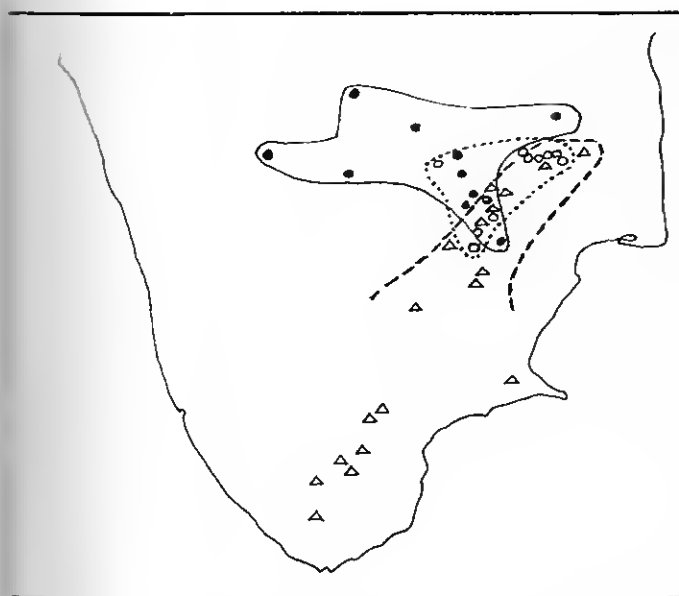


Fig. 11 Overlapping political regions in the Kāverī area and farther south, according to Soundara Rajan.

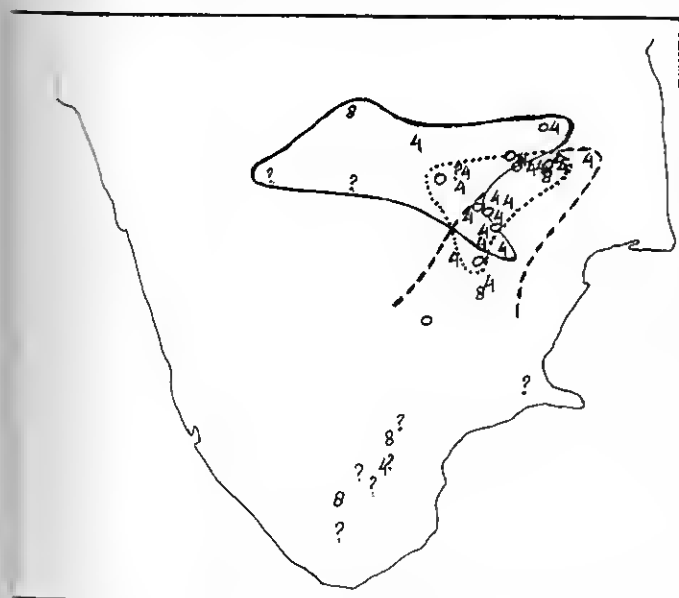


Fig. 12 Distribution of various types of śikhara in the Kāverī area and farther south, according to Soundara Rajan.

information given by Soundara Rajan in fig. n. accompanying his article,⁶³⁾ we can only draw the following conclusions:

- separate territories belonging to the Muttaraiyars, the Irukkuvels or the Pāṇḍyas cannot be demarcated (Fig. 11, p. 57);
- regions characterized by, for example, square śikhara, neither exist, nor coincide with political boundaries (Fig. 12, p. 57).

His own words — intended for the Coḷas only — "that art and politics have no direct or parallel relationship"⁶⁴⁾ seem to apply even more to the art of the Pāṇḍyas, the Irukkuvels and the Muttaraiyars. If Soundara Rajan's aim was to prove that the Irukkuvels built Irukkuvel monuments different from those raised by the Muttaraiyars or the Pāṇḍyas, he should have tried to discover the really distinctive characteristics of their styles and the boundaries of their territories. When these two aspects — distribution of stylistic characteristics and political regions — coincide, it seems reasonable to assume a regional norm. In our opinion Soundara Rajan made two mistakes. In the first place, he chose the wrong criteria to prove his rather revolutionary theory. Secondly, he assumed a relationship between political power and art for such groups as the Muttaraiyars, the Irukkuvels and the Pāṇḍyas, while denying a similar correlation with regard to the Coḷas, presumably because the range of their influence was too small before A.D. 900.

2. Presupposed and known characteristics of Coḷa architecture

Apart from Soundara Rajan, few authors have paid attention to the architectural developments in the Deep South, partly because until recently only a small number of Coḷa monuments was known, and partly because the term Early Coḷa was never properly defined. Jouveau-Dubreuil, the first to propose a terminology for South Indian architectural details, suggested a tentative demarcation of the Early Coḷa period between A.D. 850 and 1100.⁶⁵⁾ Sastri distinguished two phases in the Early Coḷa style: the Pallava-Coḷa transition during the reigns of Vijayālaya and Āditya I between A.D. 850 and 907, and a more pronounced Coḷa period during the rule of Parāntaka I up to and including that of Uttama Coḷa, i.e. between A.D. 907 and 985.⁶⁶⁾ Together these two phases are more than a century shorter than the period proposed by Jouveau-Dubreuil. Balasubrahmanyam introduced a third possibility. In his opinion there are two distinct phases: that of Āditya I and that of Śembyan Mahādevī. These two royal persons were the most important promoters of the construction of

temples dedicated to Śiva. Their names should therefore be honoured by relating them to particular stylistic periods. The style of Āditya I embraces according to the period between A.D. 850 and 955, while that of Śembyan Mahādevī flourishes between A.D. 955 and 985.⁶⁷⁾ With Sastri he believed that the Middle Coḷa style begins with the reign of Rājarāja I, the most famous of all Coḷa kings. Barrett, on the other hand, included the temples built during the reign of Rājarāja I in his Early Coḷa style. Furthermore, he did not distinguish between phases but three: phase I called after Āditya I from A.D. 866-940; phase II considered to be a transitional period between A.D. 940 and 970 ; and phase III named after Śembyan Mahādevī from A.D. 970 to 1014.⁶⁸⁾ In the scheme below we summarize the various views.

Author's name	Name of period	Dates of period
Dubreuil	Early Coḷa	A.D. 850 - 1100
Sastri	Pallava-Coḷa transition	A.D. 850 - 907
	Early Coḷa	A.D. 907 - 985
	Middle Coḷa	A.D. 985 - ?
Śaṭasubrahmanyam	Āditya I or first phase	A.D. 850 - 955
	Śembyan Mahādevī or second phase	A.D. 955 - 985
	Middle Coḷa	A.D. 985 - 1070
Barrett	Āditya I or phase I	A.D. 866 - 940
	phase II	A.D. 940 - 970
	Śembyan Mahādevī or phase III	A.D. 970 - 1014

In all cases the first phase extends over a much longer period than the second or third. In our opinion this is due to lack of knowledge about the development of the architectural features which should be considered to be typically Early Coḷa and those that are not. The views of the most prominent authors on this subject will be given below. From this survey it will become clear that we had to follow our own course of reasoning and our own procedure of investigation, because little could be derived from the previous art-historical publications.

2.1 The views of Sastri and others.

According to Sastri the features of the Early Coḷa style are:

1. a continuation of the Pallava and Pāṇḍya traditions while the size of the temple grows along with an extension of the imperial borders;⁶⁹⁾
2. a greater emphasis on the central shrine than in the Pallava and Pāṇḍya

temple complexes;

3. a remarkable simplification of the exterior in contrast to that of the Pallava and Cāḷukya monuments which are covered with images, pilasters and arabesque motifs;
4. the introduction of an antarāla⁷⁰. (This element is, however, present in all small Pallava shrines);
5. the development of the kumuda — originally an octagonal element — into a round profile. (The Pallavas applied the round shape in a version with vertical flutes);⁷¹
6. the development of the kapota from a straight to a bell-shaped cornice. (This feature was, however, already known to the sculptors of the temple at Kaḷugumalai, Tinnelveli District);
7. the gradual disappearance of the lion-motif;
8. the introduction of a padmabandha on the shaft constricting the upper part into a kalaśa;
9. the widening of the palagai and the appearance under it of a petal moulding, the so-called idaḷ;
10. the disappearance of the curved roll-profile of the Pallava podigai. This becomes angular and bevelled with or without rolls, called taraṅga, which do not run all the way up to the bhūtagaṇa frieze or uttira;
11. the evolution of the "pilaster-niche" into a "prepared" niche by which Sastri means a deep niche;
12. the appearance of a vyālivari over the kumuda. (This is, however, a typical Cāḷukya decoration, though also applied on the Pallava Shore Temple at Māmallapuram);
13. the frequent absence of the median band on the podigai;
14. the presence of bhūtagaṇas and vyālis under and over the kapota respectively;
15. the change of the shovel-top over the kūdu into a śiṃhamukha or trefoil;
16. the gradual transformation of the kūdu into a circle without heads;
17. the disappearance of a peristyle consisting of subshrines.

As against the Pallava style, Early Coḷa architecture indeed shows obvious changes in many respects. Comparing the features mentioned above with those in the list of Cāḷukya characteristics, the numbers 12, 15 and 17 would appear imitations. The aspects referred to under 8, 10, 11 and 16 are new and therefore Early Coḷa contributions (cf. pp.42-43).

For the sake of completeness some Early Coḷa characteristics mentioned by other authors may be added. Numbering on, these are:

- 1. an ogeed contour of the domical finial on the śikhara similar to those at Bādāmī and Paṭṭadkal;⁷²⁾
- 2. a niche with pilasters surmounted by makaratorṇas, but with a lintel resting on blocks, while the capitals of these side pilasters are considerably lower;⁷³⁾
- 3. the absence of a "wall of shrines" over the ardhamāṇḍapa;⁷⁴⁾
- 4. the introduction of sculptures and reliefs under the pilasters in the general design of the temple;⁷⁵⁾
- 5. the appearance of a lotus moulding instead of a vertical jagatī;
- 6. the introduction of figures on either side of the niche, iconographically related to the image in the niche;
- 7. an increasing variety of pilaster-contours. Side by side with square shapes, circular and octagonal kāls occur;⁷⁶⁾
- 8. the appearance of a row of circles running along the bottom-fascia of the kapota;⁷⁷⁾
- 9. the introduction of the koṭikkarukku;⁷⁸⁾
- 10. the replacement of Ardhanārī by Liṅgodbhava in the western niche of the garbhagrha;⁷⁹⁾
- 11. the incorporation of a pranāla, a feature always absent in Pallava monuments.⁸⁰⁾
- 12. the introduction of the vari interrupted by niches and kumbhapañjaras.⁸¹⁾

The authors quoted in the above enumeration, complement each other and never contradict each other. They mentioned indeed a large number of features which were, however, designed over a long period and which they described in vague, comparative terms such as "simpler", "larger", "wider" and so on. This does not provide a particularly clear picture. Neither do the opinions of Brown and Sivaramamurti. However, these two authors have to be quoted explicitly, because they attributed a far greater importance to the influence of the Cāṭukya style on that of the Coḷas. The ogeed contour — already decisive for the profiles of the Cāṭukya monuments — as well as the row of vyālis "squirreling under the weight of the superimposed masonry, as if their bodies were mortared within the joints of the structure..."⁸²⁾ should be regarded as proofs of a virile influence, i.e. that of the Cāṭukyas, announcing a completely new movement in South India. Sivaramamurti mentioned in particular the temples at Śrīnivāsanallūr, Kumbakonam and Koḍumbāḷūr as typical examples of Pallava-Pāṇḍya influence with an unique admixture of Cāṭukya-Rāṣṭrakūṭa ornamental elements. He also mentioned the phenomenon of the nāṭṭiya-peṇs, which can be compared to the mithunas at Bādāmī.⁸³⁾

2.2. The views of Balasubrahmanyam.

Balasubrahmanyam used inscriptions on the walls of a temple, in copperplates or in manuscripts – for his classification of temple styles. Unfortunately, these records still give rise to various interpretations and consequently, many dates due to the fact that the chroniclers often indicated rulers merely by their honorific titles such as Parakesari (varman) or Rajakesari (varman) without further specifications. Perhaps the omission resorted from lack of space, like our shorthand came into existence due to lack of time. Early regnal years often produce special problems, since many kings ruled for only a short period.⁸⁴ As a result of these chronological uncertainties Balasubrahmanyam completely denied a noticeable development in the Coja architecture. This is not be surprising since his chronology is based on inscriptions and therefore questionable. Consequently, the corresponding stylistic development shows inexplicable sequences and archaisms. His statement that "stylistic features should be derived from [a] sufficient number of dated monuments" and that "...it is unsound to go through the process in the reverse order"⁸⁵, is only valid when monuments can be dated firmly. If this is not the case, then we are forced to proceed in "the reverse order", that is by using the data provided by the exterior features of a building.

However, Balasubrahmanyam has made an important contribution to our knowledge of Early Coja architecture because he actually discovered many shrines which until recently were unknown. He traced the origin of each and every temple and provided interesting information about the mythological background of their locations. However, with regard to the art-historical development, we are left in the dark. In a period embracing more than a century, he was unable to discover more than nine style features, which he formulated as follows:⁸⁶

1. the temples are stone (kajra) buildings, usually replacing earlier brick shrines;
2. they are humble structures of one to four talas;
3. the śikhara may be square, round or octagonal;
4. the plinth is simple, sometimes with a lotus moulding and a vyāli or elephant frieze;
5. the garbhagṛha is normally square, occasionally apsidal, with an ardhamaṇḍapa; sometimes a false antarāla is present or even an antarāla with a connected or detached mukhamaṇḍapa;
6. the number of devakoṣṭhas varies from three to five, with a striking preference during the days of Aditya I for Ardhaharī in the western niche;
7. in many cases there is a makaratorana over the devakoṣṭhas;

the cornice is crowned with a vyāli or goose frieze; the kūḍus receive a śiṅhamukha top; circles appear immediately above the edge of the kapota and koḍikkarukkus on its corners; the niches of the śālās and the kuṭīs situated on the higher talas accommodate images.

Although these features are characteristic of both of his two phases, the second phase shows, moreover, the following "developments":

gradual transition from the first into the second phase;
the number of devakoṣṭhas increases and may amount to sixteen; they are not always real niches, but rather intermissions on the walls by way of pilasters crowned with makaratorṇas; sometimes niches are actually carved out in the walls and Balasubrahmanyam reported — not without regret — that inscriptions were often obliterated due to this procedure. Nevertheless, he immediately added that "temples with an increased number of devakoṣṭha figures can be classified as belonging to the Śeṁbyan Mahādevī style".⁸⁷⁾ This may be true for the images in the niches, but not for the temple itself, for the number of carved-out devakoṣṭhas obviously cannot serve as a stylistic feature if older inscriptions were destroyed due to these additions. If the obliterated inscriptions and the carved-out devakoṣṭhas were practically contemporary — as Balasubrahmanyam's reasoning would seem to imply — then we would have to assume that the chronicler received a rap on the knuckles by the stone-cutter at the very moment he was committing the glorious deeds of his monarch to the temple walls!

several apsidal koyils were constructed. The examples mentioned are the shrines at Tirukkalikkunram, Tirumulaivāyil, Pennadam and Tirumiyachchūr.⁸⁸⁾

From this summary we would have to conclude that a temple built in A.D. 880 would in no way distinguish itself from a shrine raised a century later whereas a building firmly dated in A.D. 960 suddenly shows "gradually transitions" and an increasing number of niches, when compared with a shrine erected only ten years earlier.

The simplicity of Balasubrahmanyam's analysis compels mistrust and scepticism, all the more so because he was inconsistent in applying his primary criterion, i.e. the contents of the inscriptions. This is particularly disturbing in the case of the apsidal temples, the third characteristic of his second phase. Of the four examples which he mentioned the shrines at Tirumulaivāyil and Tirumiyachchūr bear inscriptions exclusively from the days of either unspecified kings or of Rājarāja I and Rājendra I, without referring to the date of con-

struction.⁸⁹⁾ The inclusion of the koyil at Pennadam is completely incomprehensible, as this temple only bears inscriptions from the reign of Rājendra I and later.⁹⁰⁾ The shrine at Tirukkalikkunram is a small, disputed building. In spite of the absence of inscriptional evidence Balasubrahmanyam attributed it to Āditya I, although its apsidal shape would imply that it belongs to his second phase. Barrett dismissed the monument entirely because, in his opinion, it cannot be older than the 13th century.⁹¹⁾ So, according to inscriptional evidence, none of the four apsidal monuments mentioned by Balasubrahmanyam was erected in the Śembyan Mahādevī phase, which implies that at least one of the main characteristics of this phase is invalid.

2.3. The views of Barrett.

Although Barrett's objects are the observable and measurable units of the temple building itself, his work hardly refutes the conceptions put forward by Balasubrahmanyam. The introduction of a transitional phase in the middle of the 10th century on the basis of a supposed development in style and the inclusion of the Rājarāja koyils in the Early Coḷa period are rejected by Balasubrahmanyam, since he did not accept "The existence of a high plinth, the erection of a 'false antarala' and the installation of Agastyar...[as] basic factors for the enunciation of a new phase [that is the second] of style"⁹²⁾

Barrett, on the other hand, believed the political situation to be sufficient proof for his tripartite division. He did not need inscriptions to reinforce his opinion: "...religious art repeats the pattern of the political history with two great outbursts of creative energy separated by a bleak and mainly unproductive period of about twenty years."⁹³⁾ He rather doubted the late Pallava influence on the style of phase I, but considered Muttaraiyar influence to have been possible.⁹⁴⁾ He also rejected the idea of a Pallava-Coḷa transition, because a connection with the Pāṇḍya idiom seemed to him a more fruitful starting-point.⁹⁵⁾ This connection, however, cannot be established, because until now no structural temples, dating from the pre-Coḷa phase have been discovered in Pāṇḍya territory. Consequently, his thesis cannot be tested and actually turns out to be merely a remark, for it does not reappear anywhere else in his text as a perceptibly determining idea.

Barrett's arguments to consider the Rājarāja temples as Śembyan Mahādevī monuments were put forward more convincingly. This lady — respectively spouse, mother and aunt of three Coḷa princes — seems to have devoted herself throughout her long life to the erection and reconstruction of temples, both in and beyond the Coḷa heartland. Most likely, she had a workshop with skilled craftsmen at her ser-

... These artists were probably not immediately relieved from their honours and assignments after the death of Uttama Coḷa in A.D. 985. Śembyan Mahādevī might have persuaded her nephew Rājarāja, his wives and daughters to follow her son's energetic example by keeping the workshop provided with commissions. Assuming the existence of an atelier founded and financed by Śembyan Mahādevī — even long after Rājarāja I became king — it seems logical to consider the Rājarāja I monuments as basically Śembyan Mahādevī koyils, for their style would then still be rooted in that of the workshop and not the result of an entirely new source of inspiration, which, in addition, should then have exercised the stimulating power of Śembyan Mahādevī.⁹⁶⁾

Barrett determined three stylistic phases on the basis of six elements, which in the course of time underwent striking modifications. These are:

- 1. the composition of the adhiṣṭhāna;
- 2. the shape and decoration of the walls;
- 3. the shape of the ground-plan of the vimāna;
- 4. the shape of the ground-plan of the ardhamandapa and the way in which it is connected to the vimāna;
- 5. the shape of the śikhara;
- 6. the place of the parivāradevatās in the temple complex.

To each of the first four aspects Barrett devoted a chapter illustrated with drawings. He dwelled shorter upon the last two features because they have been liable to change to such an extent that the original śikharas and parivārayas have disappeared under thick layers of stucco, or have been replaced by constructions of brick. Moreover, he believed, that the successful experiments of the Pallava architects definitely established the shape of the Indian śikhara. The Coḷa artists distinguished themselves merely by leaving out the hāra and the karṇakuṭīs on the grīvā-platform, which weakened the strictly pyramidical character of the Pallava superstructure. The hāra over the ardhamandapa disappeared at the same time, so that this front-porch could be distinguished more easily from the vimāna.⁹⁷⁾

In the following paragraphs we intend to discuss Barrett's views on the development of the four first aspects through three successive and distinctive phases.

1. The Coḷa adhiṣṭhāna.⁹⁸⁾

Three basic shapes of an adhiṣṭhāna are — according to Barrett — determined by the shape of the kumuda and that of the jagatī. He distinguished:
a straight profile with a kumuda showing three facets (Fig. 13a, p.66)

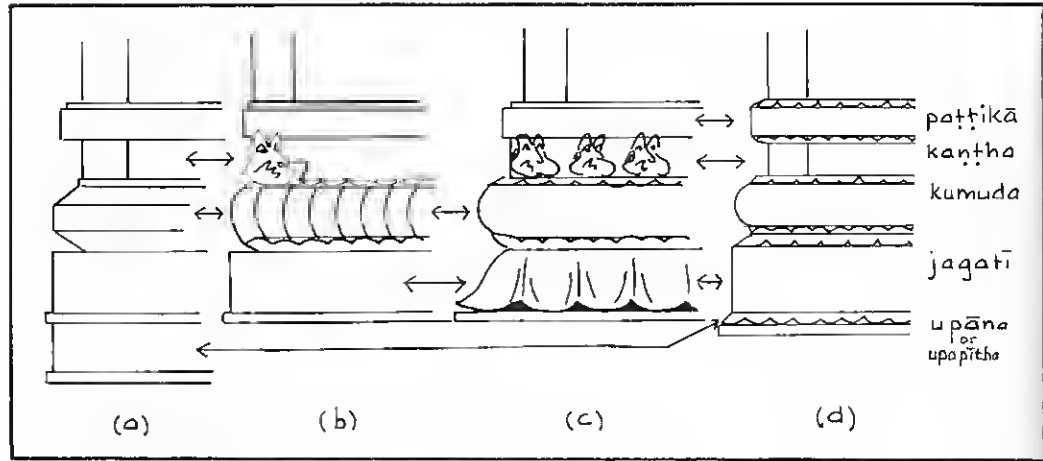


Fig.13 Adhiṣṭhāna types according to Barrett.

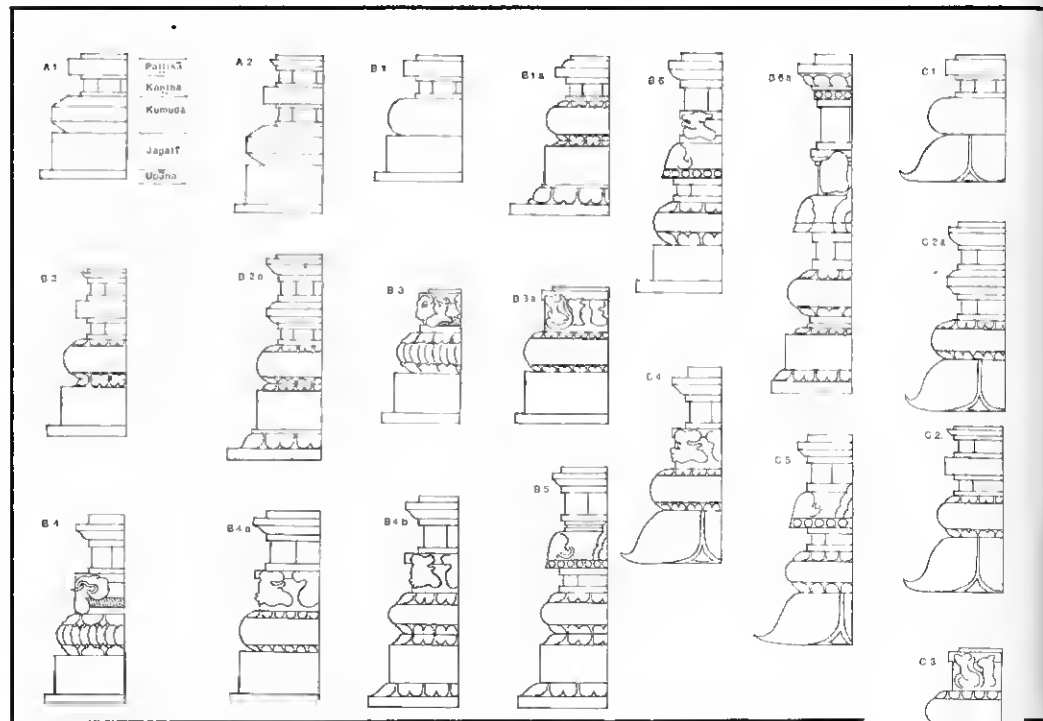


Fig.14 Typology of Early Coḷa adhiṣṭhānas (after Barrett).

1. single curved profile with a rounded kumuda (Fig. 13b);
 2. double curvature consisting of a lotus jagatī and a rounded kumuda (Fig. 13c).
 Variant c seems to have been an original contribution of the Early Coḷa architects. The straight profile was a feature applied by the Pallavas. The rounded, plain kumuda — variant b — can be found on a number of Pallava temples. However, variant d is a typical Coḷa combination. Its main characteristics are the replacement of the tripaṭṭa kumuda (a) by the rounded version (b), a padma decoration on each and every layer and the absence of vertical flutes on the kumuda. Other subvariants are shown in Fig. 14. Most of them include the kaṇṭha which is, however, part of the wall. So, these variants can be "reduced" to their corresponding types without variation (for instance A2=A1; B4=B3; B4a=B3a). The straight kaṇṭha, which is typical of the Pallava style, can be replaced by a frieze. We already noticed these playful, tumbling animals on Cāḷukya Pallava monuments, but there they are depicted on the kaṇṭha in order to imitate the square blocks which extend over the kumuda at regular intervals and imitate the wooden floor-joints of brick temples. Their functional meaning was lost when shrines were built of stone. As a result, the Coḷa architects placed the gāḷis in a continuous row. A further subclass showing the rounded kumuda is based on the combination of a kapota over a plain kumuda. The presence of the small cornice instead of a paṭṭikā on the adhiṣṭhāna is a phenomenon often occurring on Cāḷukya monuments. Nevertheless, Barrett regarded a kapota in that sense as an original innovation of the Early Coḷas.

The typical Early Coḷa adhiṣṭhāna could be constructed on the basis of the features mentioned above. The arrows in Fig. 13 indicate how various elements could be interchanged horizontally. This is apparently exactly what the artists did in view of the large number of subclasses distinguished by Barrett (Fig. 14). The Pallava upāna seems to have fallen into disuse during the Early Coḷa period. In an elevated version, this platform returned as part of the temple only during the reign of Rājarāja I, after which it normally formed the base of all vimānas, maṇḍapas and gopuras.

The typology of Barrett shows, however, many deficiencies (Fig. 15, p. 68). Firstly, the characteristics of phase I cannot be used in dating monuments. They either occur in all phases (A1, A2 and B4a) or on one temple only (B3a), or they are located on the borders and even outside the territory conquered by Rājaditya I (B3 and B4). Phase III produces similar problems. Here variants A1, C2a and C5 occur only once and the adhiṣṭhānas of type B1a and B2 are part of shrines which according to some authors were built in other periods.

Phase I	Phase II	Phase III
A1	A1	A1
A2	A2	A2
-	-	B1 ^R
-	-	B1a [?]
-	-	B2 [?]
-	B2a [?]	B2a
B3 ^P	-	-
B3a [?]	-	-
B4 ^P	-	-
B4a	B4a	B4a
-	-	B4b ^{??}
-	-	B5
B6	-	-
-	-	B6a
-	-	C2a [?]
C3	C3 [?]	-
C4	-	C4
		C5 [?]

[?] = only one temple of this type
^R = only one temple, but renovated
[?] = only one temple, but controversial
^P = only one temple in Pallava territory
^{??} = two controversial temples
[?] = two temples, but one controversial
^R = two temples, but one renovated
^P = two temples, but one in Pallava territory

Fig. 15. Distribution of adhiṣṭhāna types over three style phases.

In the second place Barrett failed to explain the sequences suggested in his typology. Studying Fig. 15 we wonder how B1 in phase III can have developed out of A2, whereas B3 — occurring only in phase I — consequently, must be older than B1. We receive rather unexpected explanations. Quoting Barrett "B1... follows A1". "B2 follows A2..." "A2... is identical with A1". "B3... follows B1". From Fig. 15 we may conclude that B3 certainly does not follow B1; that B2 follows B1a and definitely not A2. B1 follows A2 instead of A1. Even if "to follow" is used here as an equivalent for "identical with", except for a small padmabandha, Barrett's typology does not seem to make sense. We should bear in mind that he had to prove the unorthodox view that three phases can be distinguished in Early Coḷa architecture. In his attempt to convince us he should have emphasized differences instead of similarities.

2.3.2. Shape and decoration of the wall. 99)

The most outstanding components of a temple wall are the kāḷ, the podigai, the prastara, the devakoṣṭhas and the makaratoraṇas. Of these five elements Barrett

did only observe evolutionary tendencies in the podigai and the devakoṣṭhas, at least this can be concluded from the fact that he described only one variant for each of the other three elements, which, therefore, do not seem to change during the three phases. However, the profile of the prastara can be straight or bell-shaped. This has been noticed by many authors, but was not mentioned by Barrett. The only difference between a Coḷa and a Pallava prastara which he pointed out, is the replacement of the Pallava shovel by the Coḷa *śiṃhamukha*.

2.2.1. The *kāl*.

The Early Coḷa *pilaster* is a slender version of the massive Cāḷukya and Pallava *pilaster*. The constriction of the *padmabandha* seems to be a Coḷa contribution and is very striking indeed. Due to the introduction of this *bandha* the upper part of the *pilaster* becomes a *kalaśa*. In Pallava monuments the *mālāsthāna* under the *padmabandha* produces a rather ponderous and awkward impression. The Coḷa sculptors, on the other hand, utilized the *mālāsthāna* to display their artistic abilities adding chains of flowers and beads interspersed with *nāṭṭiya*-pegs, *śaṅkha*-panels and small panels.

2.2.2. The *podigai*.

This is the most important element on which Beauvau-Dubreuil based his temple styles, continuously repeating a traditional western practice.¹⁰⁰ The Pallavas introduced a *podigai* of which the large, even rolls run into the *uttira*. The Coḷas, however, designed a completely new roll-pattern in which a complex profile of the throating emerges which does not run onto the *uttira*, but is separated from it by a vertical *fascia* (Fig. 16). The decorated middle band (*paṭṭa*) occurs in both styles although the Coḷas applied it more frequently.

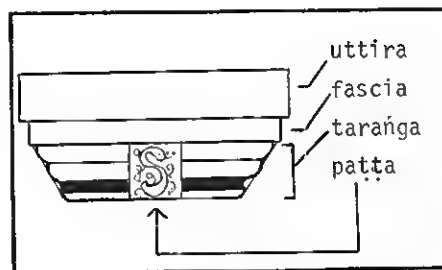


Fig. 16 Early Coḷa *podigai*.

2.2.3. The *devakoṣṭhas*.

According to Barrett the niches of the Early Coḷa period consist of "two split pilasters..., which support, on the corbel, on the *vira-kaṇṭha* or directly on the *phalaka*, a lintel of two straight mouldings... Over the lintel is a great pedilune,..."¹⁰¹ This shape seems to remain the same throughout the period embracing the three phases, for he did not mention changes in this new combination of elements.

2.3.2.4. The makaratoraṇa.

A makaratoraṇa is a kind of crescent flanked by two makaras resting on a lintel, an element which is new in early South Indian architecture. The difference between a Pallava and Coḷa toraṇa is that in the former the makaras really span an arch—as indicated by the name makaratoraṇa—whereas the Coḷa version should rather be described as a makara-tympanum. Barrett did not go into the development of this unique, ornamental detail of the temple wall, although it displays great variation within the Early Coḷa period.¹⁰²⁾

2.3.3. The ground-plan of the vimāna.¹⁰³⁾

With regard to the ground-plans Barrett distinguished five major types (A-E) with together show fifteen variants of which B2 is represented by three variations, (B2, B2a and B2b, Fig. 17). His arrangement suggests an evolution from a simple, square building to a more complicated pattern, in which one or more frontispieces and recesses alternate. However, this division into major types and their variants hardly facilitates an investigation based on a stylistic development in three phases, such as that which Barrett presumably used as his starting-point. From Fig. 18 we learn that four of the five major types were common in phase I, represented by seven of the fifteen existing variants. All major types occur among the Śembyan Mahādevī monuments with fourteen of the fifteen variants. Types B2a, B2b and B4 occur only once, B5 twice. Such a classification is unsuitable as a means for dating temples, it only characterizes periods.

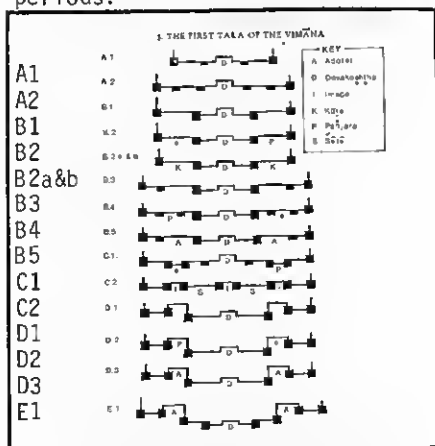


Fig. 17. Typology of vimāna ground-plans (after Barrett).

Fig. 18. Distribution of vimāna ground-plans over three style phases.

Phase I	Phase II	Phase III
A1	A1	A1
-	A2*	A2 ^{R?}
B1	B1 [?]	B1
-	B2*	B2
-	-	B2a&b*
B3	B3	B3
-	-	B4*
-	-	B5
-	C1 [?]	-
D1*	-	D1*
D2*	-	D2
D3	-	D3*
E1*	-	E1*

*=one temple
 ?=controversial
 R=renovated

The ground-plan of the ardhamandapa. 104)

In his discussion of the ground-plan of the porch, Barrett brought in more than one ground-plan suggests, for he not only paid attention to the ardhamandapa, but also to its connection with the vimana. He distinguished three major types (Fig. 19), which are divided into fourteen subclasses due to the presence of niches, blind devakosṭhas, pañjaras or adorers. Unfortunately, only one of Barrett's three major types coincides with one of his three stylistic periods (Fig. 20). Main types I and II occur in all three periods, whereas the

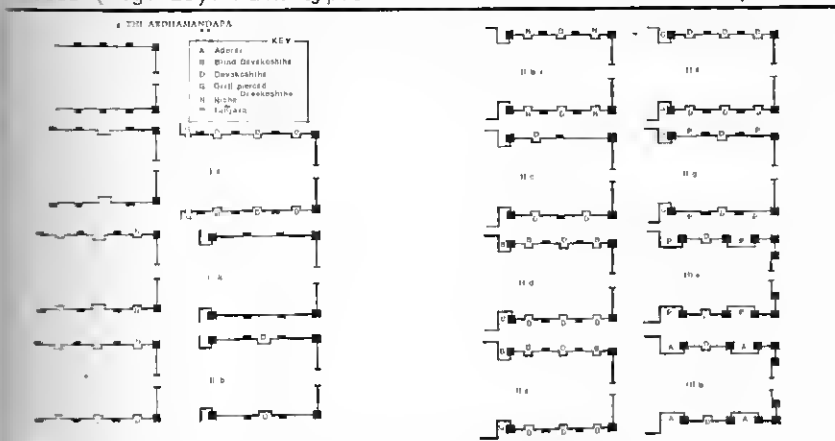


Fig. 19 Lay outs of an ardhamandapa and its connection to the vimāna (after Barrett).

The ardhamandapa, its ground-plan and connection to the vimāna.		
Phase I	Phase II	Phase III
Ia	Ia'?	-
Ib	Ib	Ib
Ic'	-	-
-	-	Id'
-	-	Ie'
IIa'	-	-
IIb'	IIb	IIb
-	IIb1'	IIb1
-	IIC'	-
-	-	IId'
-	IIe'	-
-	-	IIf
-	-	IIg'
IIIa'	-	-
IIIb'	-	-

Fig. 20. Distribution of temple types over three style phases.
x the temple of this type

third type occurs only twice in the first period and is represented by two variants. Only variant II f is characteristic of the third phase. It includes nine examples and is therefore a valid criterion for classification. This variant is similar to that used by Balasubrahmanyam, i.e. the number of niches being more than three. Variant Ia is typical of phase I, if we ignore the sole example belonging to the second phase. As this happens to be a controversial temple, this is admissible. All other variants either occur in all phases or were designed only once. As such they are unsuitable to date Coḷa monuments. All this implies that Barrett's three phases have to be rejected.

3. Characteristics at the time of Rājendra I

Few examples are known from the period following the death of Rājaraḷa I in A.D. 1014.¹⁰⁵) As examples we mention the Amman (Pārvatī) shrine or the Uttar Kailāsa at Gaṅgaikoṇḍacoḷapuram and the Gaṅgaikoṇḍacoḷeśvara at Kūḷambandal, not far from Kāñcī. Both were built during the reign of Rājendra I, the king who conquered the river Gaṅgā. They are dvitalas and therefore of a size which is characteristic of the phase preceding the construction of these temples. In general these shrines resemble the other temples in many respects. Yet, they display a few deviations (Pls. 19-20, 22) such as the shape of the podigai. On the Amman shrine this has a tenon, which on the other temple even seems to show a certain swelling assuming a spherical shape. The profile of the kapota at Kūḷambandal has become bell-shaped. The row of circles has been moved up, so to say, in order to make room for a plain, vertical moulding as can be seen — among others — on the shrine at Tiruvāḷṅṅavaram (Pl. 21a). The bhūtagaṇa frieze under the kapota is replaced by the much simpler padmabandha. The antarāla and a separate shrine for Amman are completely new elements which are added to the old layout. The number of niches has been increased as can be seen at Gaṅgaikoṇḍacoḷapuram and Kūḷambandal. Moreover, kumbhapañjaras have been introduced in the recesses of the vimāna walls of the Amman shrine. There may also be karnakuṭīs on the grīvā-platform, and finally, the composition of the part directly over the devakoṣṭha lintel can vary considerably for, instead of the makaratoṛaṇa, the Cāḷukya type of kapota or canopy has been applied.

In view of the fact that the profile of the kapota seems to be a Pāṇḍya contribution, while the karnakuṭīs are elements which occurred previously around the octagonal śikhara of some Pallava temples, it seems legitimate to assume that certain ideas were imitated from other parts of the huge empire created by Rājendra I — except for the podigai. From Balasubrahmanyam's survey we must conclude that these ideas conquered the delta with considerably less

man that with which Rājendra I took possession of the whole of South India. The Middle Coḷa period may, therefore, be taken to begin with Rājendra I. Further, in our opinion the actual revival of temple-building activities took place later on in that century, i.e. during the reign of Kulottuṅga I (A.D. 1070-1120), at least in the present Tamil Nāḍu.

Determination of characteristics to be investigated

On the basis of the information produced in the preceding paragraphs it was possible to arrange all existing characteristics and their variations in a so-called code-list, of which appendix 5 is the result. All temples mentioned in appendix 2 were described on punched cards according to this list. In this way each monument received its own identity-card, consisting of 70 digits. The first six ciphers indicate its hor(izontal) and ver(tical) position in a set of coördinates which corresponds with its geographical location on the map; the seventh digit (aspect 1) refers to the district in which the temple is situated. These first seven digits were not included in the code-list since they do not represent architectural details. All other digits indicate a particular architectural detail or ornament. Each of these aspects (digits 2 to 64) can vary between 0 and 9; 0 indicating the structural absence of the detail in question, 1 to 8 indicating demolition, renovation or (modern) alteration. The numbers 1 to 8 indicate one of the known variations of the element in question.

[illegible]

The information on the punched cards was fed into the computer, which printed sheets resembling the example given above. From this we learn, among others, that the temple located at 001002 has a square śikhara, for it is characterized by a 1 under aspect 37. This digit refers to the śikhara in our code-list, where the numbers 1 tot 6 represent six different shapes and 2 stands for square. These long demotivating numbers were fed into a computer in order to have it print maps showing the distribution of each individual temple detail and its variations. In map 4 we can, for instance, see that the location with the coor-

ordinates 078005 has a śikhara of type 2. Combining this information with map 3 we learn that the koyil at Śrīnivāsanaḷlūr has a square śikhara.

The computer was asked to print the variants of aspects 2 to 64 into maps in order to demarcate regions based either on one aspect in all its variations or on a combination of aspects of one particular variant. Some elements appeared to occur in one variation only, thus creating a single, large and uniform region; other aspects or combination of aspects showed up as if an explosion had split the entire Coḷamaṇḍalam into tiny pieces. Such maps — and consequently the aspects on which they are based — are of no use in our type of investigation, since in neither case a diffusion model can be extrapolated, i.e. the variants do not show a development either in space or in time.

Fortunately, many distribution-patterns could be "read" as spatially arranged series of subregions characterized by a *predominance* of one variant or a particular combination of aspects, illustrating in one way or the other, the assumptions and hypotheses represented in chapter one. The demarcation of these subregions was mainly based on common sense, namely, partly on the notion that diffusion of new ideas will be more like waves over a broad frontier than like the unpredictable path of a leaping frog, and partly on our topographical knowledge of the terrain over which these ideas spread. After the computer had done its job, our procedure was as follows: we drew flowing lines around groups of identical numbers; automatically other numbers were included in such circled region of identical digits, implying that these "intrusions" were either younger or older than the majority of the numbers included within an area surrounded by such lines, or built by other people than the Coḷas.

Whatever map was asked for, depended on the problem to be solved. Sometimes it was considered illustrative to be given one single temple part in all its variety or uniformity and sometimes it was necessary to ask the computer to produce several features in one particular combination, as for example in the case of the adhiṣṭhāna. The selection of each combination will be accounted for in chapters three and four.

However, before starting our investigation we should like to explain why we reduced the large number of aspects (cf. appendix 5) to the group actually discussed in the next two chapters.

Aspects 2 to 9.

These refer to a cluster of elements belonging to the upāna and the adhiṣṭhāna, i.e. the plinth and the socle. Some authors consider them to be a unit, calling it the base. Occasionally the vari or vedi is also included, although

is already part of the temple wall. Visually, however, it seems to belong to the base. Each element of this "base" was studied separately and in combination with one or more other elements of the "base", since the distribution-patterns of these separate and combined elements seemed to show an interesting spatial arrangement. However, the third, fourth and fifth variants of aspect 6 will not be included in our discussion. They are series of charming panels in the kaṇṭha, which would have to be studied on grounds on their iconographical contents. Their occurrences were nevertheless mapped in combination with parts of the kāl, since they happen to be extensions of pilasters.

Aspects 10 to 18.

These also concern a cluster, viz. the kāl from the vari to the palagai. Of all these aspects only the tenth was considered to be sufficiently important for further discussion. Almost all the features under 12 to 16 and 18 and their variants have disappeared under thick layers of plaster, so that accurate observations could be made only incidentally. Feature 17 does not really vary, for all Coḷa temples possess the wide palagai, so the distribution-pattern of this detail only showed up as one large, uniform region. The absence or presence of the idaḷ, the pointed ends of the kamala (aspect 16,4) and the lotus-buds (11-1) appeared to provide an interesting distribution-pattern. So, of this complex cluster only the contours of the kāl together with the occurrence of idaḷ and/or lotus-buds are studied.

Aspects 19 to 22.

These refer to the podigai in all its parts. Naturally, aspect 19 is discussed, since it is always possible to determine the profile of a podigai. Aspects 20 and 21, on the contrary, are often covered with so much plaster, that few conclusions can be drawn, except that every corner podigai is decorated with a panel on each side. Aspect 22 represents the feature of a nāṭṭiya-peṇ or a bearing vyāli which can be placed on the palagai and, consequently, can fill the space between the corner-podigais. Its distribution-pattern is sufficiently interesting to be discussed, although the number of occurrences is small.

Aspects 23 to 28 + 63 + 64.

These refer to the prastara, an element consisting of—mostly—hidden parts, for many monuments are surrounded by constructions which protect these buildings from their visitors from the ever burning sun and the rarely occurring monsoon rains. However, at the same time they wrap the main shrine in darkness, with

the result that it is often difficult to study various details and especially the tale-telling kūdu on the kapota is frequently invisible. Even in cases in which it can still be seen it is covered by thick layers of plaster hiding its delicately curved decoration and the contents of the kūdu. The only element which, in spite of all the "improvements" carried out in the course of time remained reliable is the uttira. This is usually adorned with a bhūtagaṇa frieze, though not always, as indicated by aspect 23. Since most parts of the prastara are represented by 9's we shall not discuss them.

Aspects 29 to 32.

These aspects concern the composition of the devakoṣṭha which consists of a makaratoraṇa(aspect 29), a kapota instead of a makaratoraṇa(aspect 30), a makaratoraṇa representation in a crescent enclosed by makaras(aspect 31) and a lintel on which the whole rests(aspect 32). The shape of the makaratoraṇa can basically be divided into two types, that is, one in which the tails of the makara hang down (aspect 29,1-2) and a second in which the tails rest on the lintel (aspect 29, 3-4). Among both types are plain and decorated examples. Decorations are usually hidden from view or seriously damaged and occasionally represent unidentified Purāṇa stories. Therefore we did not investigate either the decorated makaratoraṇa(29,2-3) or the plain versions(29,4-5). The unorthodox lintel and its three variants (32, 1-3) provided a pattern in which no regions could be discovered. Obviously, the choice between a plain or decorated makaratoraṇa was completely arbitrary as well as the application of a padmabandha on the devakoṣṭha lintel. The only aspects which were considered useful for further investigation were the kapota (aspect 30) and the mere presence of a makaratoraṇa in its hanging or curled up version.

Aspects 33 to 40, + 44 + 48.

These aspects belong to the vimāna. Most of these features are clearly visible and must have been present at the time of the original construction. The śikhara(aspects 37 and 38) forms an exception, both in the outline of its ground-plan and in its profile, for the superstructure is more liable to decay than any other part of the monument. In case of renovation a brick replacement was usually chosen as this would allow for a larger number of talas than the original stone roof in accordance with the tendency to build higher pyramids. These later brick superstructures are usually round even when the original version was octagonal or square. Only in the Tiruchirappalli District sufficient original śikharas appeared to have survived. All other aspects provide a complete picture on the map and will be discussed in the next chapter.

Aspects 40 to 43, + 45 to 47.

These aspects refer to the ardhamandapa and other porches and their connecting parts. They are of great importance for a further discussion, because neither collapse nor partial disappearance can hide their shape and content. However, we shall leave out three aspects. Aspect 41 is omitted, because in many instances it could not be determined whether the mukhamandapa was indeed contemporary or not, due to the fact that older inscriptions usually cover the walls of — presumably — later halls. This normally indicates that either the original vimāna or its mukhamandapa has been collapsed after which its inscriptions were re-engraved on the later buildings. Structurally a mukhamandapa is unstable, for it encloses a large space and the pillars have to carry the heavy, granite slabs forming its roof. So, the mukhamandapa is more liable to collapse than the more massively built vimāna or even ardhamandapa. Therefore, the chance is small that the present halls are contemporary with the still existing, original koyils. The 42nd aspect occurs only once among Coḷa temples, viz. at Rājamaṅgai, which was therefore left out. The same applies to the 47th aspect concerning the composition of the windows. This appears to be a Cāḷukya feature never used by the Early Coḷas. The 45th aspect was not mapped either, for it appears to be a later addition to existing lay-outs.

Aspects 48 to 58.

These details concern the contents of the main devakoṣṭha and the lateral niches. With the exception of aspects 49 and 50 the data can be taken for granted. Either the contents do not vary, except for the western vimāna niche, or they vary in a way which makes registration impossible. The last four aspects refer to the contents of the lateral niches of the ardhamandapa. As regions based on these aspects could once more not be established, further discussion of the contents of the devakoṣṭhas was abandoned. Moreover, images are movable objects and therefore often disappeared, replaced or substituted by other and later icons. Aspects 49 and 50, on the other hand, describe groups of images which must have been included in the temple design from the very beginning, for they are blocked-out forms next to the devakoṣṭhas. Moreover, their occurrence shows a regional bias to be discussed in chapter four.

Aspects 60 to 62.

These concern the details of the pañjara. This will prove to be an important element in the following chapter, its distribution-pattern being sufficiently significant to deserve special attention. Aspect 62, however, was not taken up. It refers to the composition of the pañjara-kūdu which has many variations,

resulting in a chaotic distribution-pattern.

It should be noted that the order of the code-list is not maintained in the ultimate description for reasons which will be given in the relevant chapters and paragraphs.



NOTES TO CHAPTER TWO

1. Cf. de Lippe's bibliography pp. 403-05; Brown, p. 83.
2. Srinivasan, K.R. 1964, Vol.II, p. 221; Idem 1975, pp. 221-22, 238. See also our appendix 3.
3. Srinivasan 1975, p. 216; Chandra 1975, pl. 106; de Lippe, pp. 154-55, pl. 16.
4. Zimmer, Vol. II, pls. 266-71. These double nāsikās are sometimes replaced by either a single one (Valaiyaṅkuṭṭai Ratha, Dharmarāja Ratha), or by double or single pañjaras (Bhīma Ratha, Gaṇeśa Ratha), cf. Chandra 1975, pls. 107, 110-11. The second tala walls carry celestial beings which are, however, variable elements, for they can be replaced by pañjaras (Valaiyaṅkuṭṭai Ratha) or by dvārapālas (Southern Piṇḍārī Ratha), cf. Chandra 1975, pls. 107-08. See also Srinivasan 1975, pp. 231-32, where he discussed the appearance of pañjaras.
5. The same combination is displayed by the Draupadī Ratha. However, this type of base is only one of the variants they tried out. The adhiṣṭhāna of the Dharmarāja Ratha shows a kapota instead of a paṭṭikā adorned with elephants and lions supporting a vari. Here this layer indicates the floor-level of the shrine, whereas in Coḷa koyils the vari has lost this function and becomes merely a decorative rim on the walls. We also note a vari on the Shore Temple in the same place as in the Dharmarāja Ratha (Zimmer, Vol. II, pls. 267 and 298).
6. Zimmer, Vol. II, pl. 270.
7. Idem, pls. 294-98; Chandra 1975, pl. 115; de Lippe, pp. 155-56, pl. 166, colour pl. J.; Srinivasan 1975, pp. 207-08, 227-29.
8. In this respect the Shore Temple resembles the monuments at Paṭṭadakka (A.D. 7th or vice versa (Pl. 6)). Since the padma moulding is sometimes considered to be Coḷa contribution it seems appropriate to mention its presence on the Pallava and Cāḷukya monuments, although here it is shaped in a rather unobtrusive manner.
9. Chandra 1975, pl. 125; Srinivasan 1975, p. 239.
10. Soundara 1969, p. 49.
11. This remark may be true for images but not for the body of a temple. Comparing Pls. 1-4 with Pls. 5-6 it is evident that the Pallavas left less wall space unadorned than did the Cāḷukyas.

- Soundara 1969, p.10. We have noticed this feature only over the porches and *maṇḍapas*. The *kapotas* of the *vimānas* on the contrary, show the steep profile, characteristic of the Pallava monuments. The first six features are referred to in Soundara, pp.12-14.
- Idem, p.12. However, trellised windows are absent in the otherwise comparable temples at Biccavolu in the Eastern *Čālukya* tract (Pls. 10, 11 and 16). A feature already noticed at *Māmallapuram* (see note 5).
- Soundara 1969, pp.14 and 23.
- Idem, p.18. However, there are several examples of round and octagonal roofs at *Paṭṭadkal* (*Mallikārjuna*) and *Bādāmī* (*Makuteśvara*, *Mālegiṭṭi Śivālaya*).
- Idem, p. 40-41. The *arpita hāra* is also typical for Early *Čoḷa* architecture.
- Idem, p.43; Zimmer, Vol.II, pls.114-15, 120-21, 128-30; Kramrisch 1965, pl.69; de Lippe, pls. 103-04, 133.
- Idem, p.44. However, pilaster-niches containing loose blocks carved with sculptures were also known (*Durgā* temple at *Aihole*, *Mālegiṭṭi Śivālaya* at *Bādāmī*, de Lippe, pls. 116 and 123).
- Soundara 1969, p.46.
- Idem, p.47; Gupte, pls.5,7-8,17,24-25,40-42 and 126.
- Soundara 1969, p.47. The moment *Gaṇeśa* was accepted as a deity to be depicted in stone on temples, its image appears in each and every *kūḍu* frame (*nāsika* arch) of the *śikhara* crowning the Shore Temple (*Srinivasan* 1975, p.228). This very small type of a representation of *Gaṇeśa* or *Gaṇapati*, occurs occasionally in the medallions which are part of *makaratoraṇas*. *Gaṇeśa* images at this place occur in buildings which are considered to be the oldest structural *koyils* in the *Čoḷamaṇḍalam* (*Tiruppalanam*, *Tiruvēdikkudi*).
- Soundara 1969, p. 42.
- Cousens, p.20 and Pl. XXXII.
- Idem, p. 53-54.
- Ibidem; Soundara 1969, p.56, pls. III-VI and XII. According to Soundara Rajan (p.52) the *Makuteśvara* at *Mahākut* is the earliest known *Drāviḍa vimāna* type in the Karnataka country dating from ca. A.D. 575. De Lippe dated the same building — without comment — in the early 7th century (p. 143, pls. 125, H). Soundara Rajan's attribution is based on an inscription on a loose pillar originally(?) in front of the (present?) *Makuteśvara*.
- Cousens, pp. 35, Pl.VIII; Soundara 1969, pl.II; Gupte, pl.45.
- Comparing this framework of a trellised window with for instance those shown in Pls.1-3 and in Fig.6, we must conclude that the Early *Čālukyas* realized the structural aspects of this purely decorative detail better than the Pallavas (cf. our appendix 3). The *Čoḷas* were probably the first to design a niche with a lintel supported by pilasters, thus giving it the appearance of a structural instead of a ornamental feature.
- Srinivasan, K.R. 1964, Vol.II, p.199.
- Idem, pp.201-02. Cf. the *Piravātaneśvara* at *Kāñcī* (A.D.700-728), where *Durgā*, *Mahiśāsura* and *Gajalakṣmī* occupy the northern and southern niches respectively.
- Brown 1965, p.70.
- Ibidem.

33. Rao, pp. 3-7; Rajendra Prasada, pp. 75, 90-92, 112-13, 130-31, 150-51, pls. 17 and 34. Kramrisch 1965, pls. 88-93; de Lippe, pls. 183-84, 189-90. Sivarama (1961, p. 1 assumed an obvious influence of the Pallava tradition with probably some mixture of the Chalky and Karkkura exuberance of ornamentation. De Lippe pointed out that the Karkas at Mamallapuram may have inspired the concept of the Vettuvankoyil, whereas the trenching technique was that of the Karkas. The luxuriant sculptural details, on the other hand, is typical of the Vettuvankoyil. Remains the problem that the Vettuvankoyil which is more over, unfinished is the one and only example of this "luxurious sculptural style, for it is hard to believe that the artists who were responsible for stark figures in Pandya caves (pls. 177-81) designed and carved the Karkas. A comparative study of the sculptures at Ellora and Karkgumalai as well as of the profiles of the various buildings in the compound of the Karkas at Ellora seems required. At least two explanations for the fact that the na is unfinished are possible. The Chalky (?) artists may have been temporary "on loan" and may not have been able to complete their work either because the unexpected death of the Pandya king who commissioned this karkil or because they may have underestimated the resistance of the rock to their chisels. At home they were used to tuff. Consequently, we are inclined to reject the theory that the Early Pandya sculptors were highly qualified artists dominating the southern style before the Early Chalkas came to power.
35. Soundara 1975, pp. 242-45; Idem 1978, pp. 105-07. Dhaky (1971, p. 271) seems to accept Soundara Rajan's views, however, without having been able to consult the most crucial photographs of among others the shrines at Tirupattur and Nemam. For, in 1971, Soundara Rajan's publication based on a conference paper of 1967, had not yet been published. De Lippe in his excellent survey of mediaeval sculpture strongly rejects the idea that the Late Pallavas influenced Early Chalk art. On the other hand, he nowhere mentions a comparative Pandya contribution (pp. 170-71). He does recognize three other local influences, viz. that of the Trukkavels, the Muttaraiyars and the Palkuvettaraiyars (1968) and he also mentions several times that certain motifs displayed at Ellamangai were copied from Pallava sculptures (p. 173).
36. Soundara 1975, p. 240; Idem 1978, p. 100.
37. The Shore Temple is built of a coarse granite heavily eroded by seawater. would not be surprised if the material of this monument (and of the others swallowed by the sea) would prove to be the rubble of the nearby caves and monoliths. This would have been an efficient use of the waste material.
38. Soundara 1975, p. 245; Idem 1978, p. 106; Dhaky 1971, p. 271; de Lippe, p. 39. Soundara 1975, p. 242. Idem 1978, p. 106, where he states that *condolones* Pallava pillars inspired the style of the Chalk pillars.
40. Idem, p. 245. See also our note 34.
41. Ibidem. According to Dhaky (1971, p. 274) there is no evidence of Pandyan influence
42. Idem, p. 247.
43. Balasubrahmanyam 1971, pp. 108-37; Barrett 1974, p. 86.
44. Soundara 1975, p. 244; Idem 1978, p. 106, where he stated that the Chalkas had no access to a liberal supply of stone of good quality, for they lived in the eastern part of the delta. Elsewhere he said that a shrine from its plinth upwards to be built of the same material as that of the cult image (p. 66). However, Silva temples in the Karkeri area contain lingas. According to Soundara Rajan lingas ought to be of stone (p. 65). Consequently, the karkis commissioned by

Āṭṭya I had to be of stone also, independent whether or not this king was ruling the plateau country.

Sastri 1955, p.110. See also note 44. The location of Uraiyūr is unknown.

Soundara 1975, p.244.

Idem.

Idem, pp.244-45; Idem 1978, p.107. See also Dhaky 1971, pp.266-67

Soundara 1975, pp. 247-48.

Idem, pp.296-97; Idem, 1978, p.14, where Soundara Rajan described the situation in which the vassals of the Pallavas and Pāṇḍyas, viz. the Muttaraiyars, Irukkuvēḷ and Paḷḷuvettaraiyars were free to concentrate on building shrines whereas the three main forces, viz. the Pallavas, the Pāṇḍyas and the Coḷas were involved in war. This is a remarkable conclusion, for at that time, the vassals were merely vassals like the Muttaraiyars, implying that the first could also have been active in erecting koyils (dedicated to Śiva).

Soundara 1975, p.251.

Idem, pp. 252-55.

Idem, pp. 249- 50.

Idem, p. 259.

Idem, pp. 252- 55; pp.260- 94; pp.299-300; Table IV. See also our appendix A, which is a summary of the information given in these pages.

See chapter four, paragraph 6. Comparing our Pls.17-18 with his pls. 136-137 the differences between the niches is evident.

Soundara 1975, pl.141. A comparison of this illustration with our Pl. 35 clearly shows the difference between the ruin and the reconstructed shrine.

Idem, pl.138.

Idem, p. 279. We would have thought this sufficient reason to refute the notion that this monument belongs to the Irukkuvēḷ style. Although Soundara Rajan's conclusion is apparently founded on the presence of an Irukkuvēḷ inscription he felt that we should "...disabuse...notions, such as that all temples containing Coḷa grant or endowment inscriptions and found in the Coḷa country should *ipse facto* be Coḷa foundations" (pp. 248-249). If we substitute the word "Coḷa" by "Irukkuvēḷ" we can only conclude that he forgot his own advice in his eagerness to prove the dominance of the Irukkuvēḷs over the Coḷas.

Idem, p. 256 and pl. 132 (instead of pl. 131 as mentioned in his text).

Idem, pp. 252- 53. Since we have not visited this monument we have to go by Soundara Rajan's illustrations which are of good quality. The vari and the pañjaras are partly visible. Comparing this "Early Pāṇḍya" monument with a number of "fully developed" "Irukkuvēḷ" shrines at Koḍumbālūr, Kīraiyūr (pl.139) and Tiruchchendurai (pl.140), it appears that both components are absent in these last three temples.

Idem, p. 295.

Idem, p. 248.

Idem, p. 295.

Jouveau, p. 39. This suggestion was accepted by Gravelly (p. 17).

Sastri 1955, p. 697.

67. Balasubrahmanyam 1966, p. 256.
68. Barrett 1974, p. 17. For three reasons we excluded from our general discussion the most recent proposals of Soundara Rajan in which he divided the Early Coḷa period in three phases, viz. A.D. 871-907, A.D. 907-980 and A.D. 985-1014 (Soundara 1978, pp. 113-14). In the first place, his views regarding the building activities in the second half of the 9th century proved to be very inaccurate, thus eroding the credibility of his first phase (cf. our pp. 48-58). In the second place, he does not mention the temples belonging to each period. This makes it impossible to check whether his views with regard to the second and third phase are correct. In the third place, the number of criteria for each and every phase is small and/or vague, or wrong. For instance, three out of seven distinctive factors of the post-Parāntaka stage occur on shrines built in the 9th or first half of the 10th century, viz. the pierced windows, the cyma recta moulding between upāna and jagatī and the rearing vyālis or nāṭṭiya-pēns on palagais (pp. 111-12) at Tiruvādūturai (A.D. 910-945), Tiruchchatturai (A.D. 883) and Kumbakonam (A.D. 885-910) respectively. The phase-characteristics of the first 36 years are restricted to the base and described as an efflorescence, out of an amalgam (pp. 108-09, 113); those of the next 73 years as a *finite* crystallisation (p. 113), characterized, though, by an *ambivalent* promotion of two existing types of base, an *occasional* occurrence of an upapītha, introduction of a kumbha-latā (pp. 109-10)—which did not occur prior to A.D. 980 — an addition of a vedi or applique parape (vari) interrupted by niches (p. 109) — though experiments with the vari started as early as A.D. 870. It appears already at Nemam in the temple attributed to A.D. 860-75 by Soundara Rajan (cf. Soundara 1975, p. 300). Then five years apparently do not belong to any phase. The third period displays the individualistic Coḷa model characterized, among others, by stambha-pañjaras (a term which does not occur in his glossary pp. 173-88, neither does stambha nor kumbha nor kumbha-latā for that matter) so we do not know to which part of the temple it refers (p. 111).
69. Sastri 1955, pp. 693-94; pp. 703-05.
70. The terms antarāla and ardhamandapa are used alternately by Sastri (p. 704).
71. Cf. Soundara 1978, pp. 108-09 in combination with aspects 12 and 22.
72. Shukla, p. 514.
73. Harle, 1958¹, p. 97, note 13.
74. Ibidem.
75. Harle, 1958², p. 4.
76. Ibidem.
77. Harle 1963, p. 82. In addition he mentioned the appearance of pavillions the temple walls. However, he also stated that this innovation is already present in Pallava structures. To call them typical Coḷa innovations therefore seems incorrect (p. 9).
78. Srinivasan, P.R. 1958, p. 69.
79. Idem, pp. 80-81; Soundara 1978, p. 110.
80. Srinivasan, K.R. 1958, p. 138; Soundara 1969, p. 19. As this element is already present in Cālukya temples it is not a typical Coḷa feature.
81. Soundara 1978, pp. 109-10, at least if his term kumbha-latā covers our kumbhapañjara which may not be the case.

- Brown, p. 85.
- Sivarama 1955, pp. 12 and 16.
- The reign of Parāntaka I was long in comparison with those of the other early Coḷa kings. It covered nearly half a century (A.D. 907-955). High regnal years of a "Parakesari" can therefore, only refer to him. Similarly, high regnal "Rājakesari" records refer to Āditya I, for the only other Rājakesari who ruled for a considerable period, viz. Rājarāja I, is usually given additional epitheta.
- Balasubrahmanyam 1971, p. 258.
- Balasubrahmanyam 1966, pp. 256-58.
- Balasubrahmanyam 1971, p. 269.
- Idem, p. 270.
- Wanga I, p. 423, SII no. 677/1904. The oldest inscriptions at Tirumullaivāyil dated in the third regnal year of Rājendra I are not engraved on the walls of the vimāna, but on the pillars of the mukhamandapa. See also Balasubrahmanyam 1971, pp. 190-91. This indicates that the vimāna might have been renovated.
- SII nos. 234-267/1929. The earliest inscription dates from the first regnal year of Rājendra I.
- Barrett 1974, pp. 66-67.
- Balasubrahmanyam 1971, p. 264.
- Barrett, 1974, p. 120.
- Idem. See also Dhaky 1971, p. 271; de Lippe p. 171, who refers to Barrett.
- Barrett 1974, p. 45. See also our note 34, p. 80.
- Idem, pp. 90-91, 121.
- Idem, p. 41.
- Idem, pp. 27-32, 126-30.
- Idem, pp. 32-34.
- Jouveau, pp. 39-41.
- Barrett 1974, p. 34.
- See our appendix 6.
- Barrett 1974, pp. 35-37, 131-33.
- Idem, p. 39-41, 134-37.
- Balasubrahmanyam 1975, pp. 331-33.



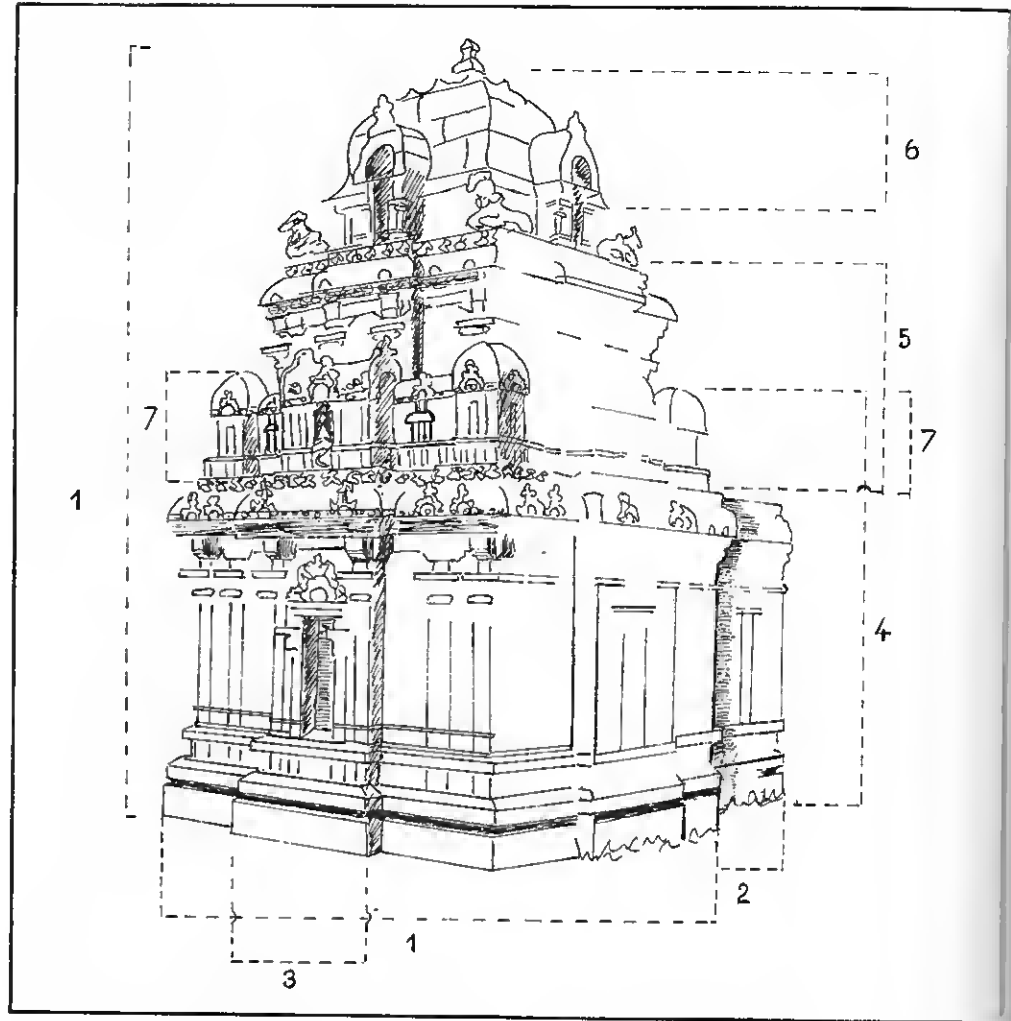


Fig. 21 Early Cola dvitala and its main architectural features discussed in chapter three.

1. Vimāna, South-west view.
2. Ardhamandapa with devakoṣṭha.
3. Central bay with devakoṣṭha and makaratoraṇa.
4. First tala.
5. Second tala.
6. Śikhara standing on a grīvā or neck.
7. Hāra consisting of karṇakuṭīs, śālā (with niche) and karṇakuṭīs; in between śālā and karṇakuṭī a connecting wall decorated with a pañjara.

(Drawing based on a photograph of the Mucukundeśvara at Koḍumbā)

Chapter three

The development of the vimāna and ardhamanḍapa in the Coḷamaṇḍalam between A.D. 850–1044

Distribution of the variants of the vimāna

Technology.

It is a correct procedure to start — like the sthāpatis or architects — with the ground-plan of a sanctum excluding the preliminary phase in which the priest or the astrologer played an important role, for this aspect lies outside our competence. In our opinion the ground-plan of a vimāna or sanctum should be considered in relation to the total concept of the building. The planned height is of great importance since the division of the walls by means of pilasters should be related to height and ground-plan.¹⁾ These statements deserve an explanation.

Let us start with the simplest form of a ground-plan: the square without niches in combination with the smallest possible number of pilasters, viz. four. The height of such a building can only be an ekataḷa as appears from Fig. 22a, p. 86. The two central pilasters extend visually upto the grīvā or neck of the vimāna. The remaining space on the grīvā-platform can be used for the representation of the vāhanas of the enshrined deity, usually nandis, or, when by way of exception it is a Viṣṇu temple, garuḍas. The second form in which the ground-plan of a shrine with four pilasters can occur has a projecting part in the middle of each wall. Although a niche is not necessarily included in the square layout (1), a shrine with a projecting part (2) always has a niche, since the projecting section is meant to serve as a tray on which an aspect of Śiva or Viṣṇu is presented to the observer. When a temple wall has six pilasters producing three planes, more layouts are possible, as indicated in Fig. 22b (p. 86), but the principle remains the same, and the building must now be a dvitaḷa. The lines of the

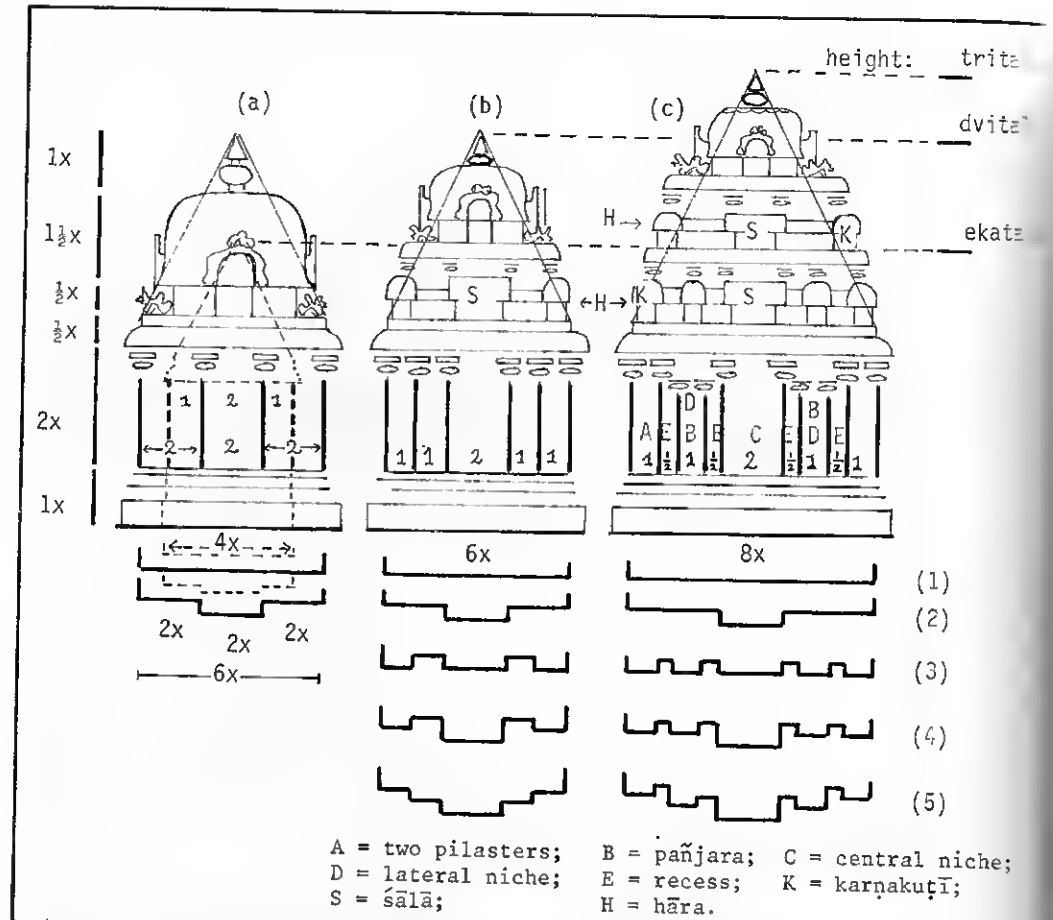


Fig. 22. a) Example of an ekatala (Type I); b) example of a dvitala (Type II); c) example of a tritala (Type III); their ground-plan variants.

two outer pairs of pilasters can be extended to the karṇakuṭīs on the first and only hāra. The two middle pilasters are crowned by a śālā in the central part of the hāra. The space between the kuṭīs and the śālā is usually meant for decorative purposes. From this figure it should be evident that adding more talas will disturb the balanced, pyramidal shape of the superstructure. A tritala must have more than five planes in its first tala. This can only be achieved by increasing the number of pilasters as indicated in Fig. 22c. It is done either by way of loose pairs of pilasters (A), or with pañjaras (B) or with niche-pilasters (C). The vertical extension of the pilasters now allows a hāra on the first tala which shows the following sequence: karṇakuṭī-kuṭī-śālā-kuṭī-karṇakuṭī. The hāra of the second tala then consists of the series karṇakuṭī-śālā-karṇakuṭī. Figs. 22c-

It clearly shows that the number of talas has no rigid relation to the form of the ground-plan, since five alternatives are indicated. The number of recesses, however, are fixed: a divitala never counts more than two recesses, a tritala never more than four. If the simple, uninterrupted ground-plan(1) is chosen, then all heights are possible, depending on the number of pilasters. This is why we decided to distinguish only three main types in the layout of a temple and not five, as was done, for example, by Barrett.²⁾ Our criterion is the number of pilasters related to the height. Within these three main types variations based on the number of recesses occur. We can, therefore, distinguish the following layouts (Fig. 23):

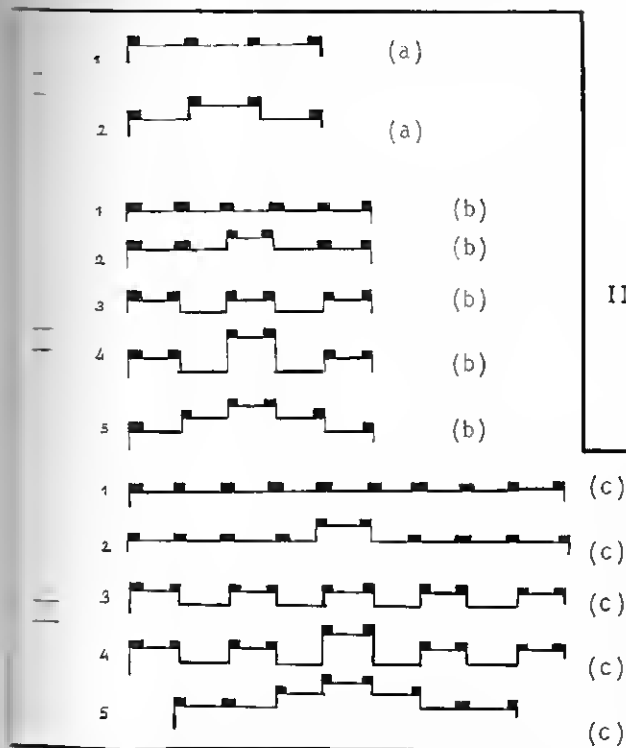


Fig. 23. The five ground-plan variants arranged according to the height (I-III), shape of the ground-plan (1-5) and the number of kails (a-c).

I. A ground-plan implying an ekatala, each wall having four pilasters(a). Its variants are:

1. a ground-plan without any projection;
2. a ground-plan with a protruding section in the centre of each wall.

II. A ground-plan implying a divitala, each wall having six pilasters(b) dividing it into five planes. The following variants may occur:

- 1.a ground-plan without recesses or projecting parts;
- 2.a ground-plan with a protruding section in the centre of each wall;
- 3.a ground-plan with two recesses in each wall;
- 4.the same as 3, but now the part between the recesses juts out;
5. a ground-plan in which

the part of each wall between the second and the fourth pilaster protrudes, while the section between the two central pilasters juts out even further.

III. A ground-plan implying a tritala; each wall having eight or more pilasters(c). The lay-out may assume the following forms:

1. a ground-plan without recesses or projecting parts, comparable with

variants I.1 and II.1;

2. a ground-plan with one projecting section in the centre of each wall, comparable with variants I.2 and II.2;
3. a ground-plan with at least four recesses in each wall; the protruding sections are lying in a straight line as in the case of variant II.3;
4. the same as 3, but now the part of each wall between the two central recesses juts out as in II.4;
5. a ground-plan in which the part of each wall between the two, four or six central pilasters extends even further as in II.5.

Other combinations consisting of a cross-breed of these pure types are anomalies occurring, moreover, outside the Kāverī area.

1.2. Distribution of the variants; determination and description of uniform regions.

A first impression of the distribution of Coḷa temples classified according to the categories shown in Fig. 23 is provided in Fig. 24a. In it only the true variants are indicated, for all other combinations should be considered as aberrations due to renovations, demolition of the upper parts, or a peculiar local idiom (Fig. 24b). The number of eleven true tritalas is small in comparison with the 51 ekatalas and dvitalas. Ground-plan variant - 2 - was applied 52 times showing a preponderance over variant - 1 - with only 27 examples. The distribution of true variants is shown in map 5 which is based on the computer-sheets of the aspects 33, 36 and 39 in appendix 5. Regions of true variants are only found in the Kāverī area. The outstanding I-1-a area lies south of the undivided Kāverī, i.e. west of the Grand Anicut. It extends via a zone — running north-south — of the slightly more complicated I-2-a temples into a third region characterized by ekatalas. Here we also find the predominant combination I-2-a. Finally there are two large dvitala regions extending eastward and westward along the banks of the Kāverī and the Coleroon. The II-2-b variant is the most common here. The tritalas and taller buildings are spread over a vast area. Consequently map 5 does not show a specific region of these types of monuments.

In the five uniform regions just mentioned, a number of temples were not designed according to the type of layout predominant in the area in which they occur. These are indicated on map 5 as circles and are listed in Table A (p.90). They are probably either younger or older than the koyils in the various subregions, for they are anomalies in the otherwise even distribution-patterns. In the next paragraph the chronology of these regions will be discussed.

District Type	Taṅjāvūr	Tiruchi-rappalli	South Arcot	Palar region	total
I-1-a	7	11	1	5	24
I-2-a	20	5	2	-	27
II-2-b	10	9	4	2	25
II-3-b	5	2	1	2	10
II-4-b	10	3	1	2	16
II-5-b	1	-	-	-	1
III/V-1-c	-	-	1	2	3
III/V-3-c	-	-	-	4 ¹⁾	4
III/V-4-c	-	-	-	1	1
III/V-5-c	1	1	-	1	3
Total	54	31	10	19	114

Fig. 24a. True variants distributed per district.

I-1-b	-	-	1	2	3
I-2-b	-	2	4	2	8
II-1-a	-	-	-	1	1
II-1-b	-	-	-	2	2
III-1-b	-	-	-	1	1
III-4-b	1	-	1	-	2
Total	1	2	6	8	17
Omissions ²⁾	3	2	8	3	16

Fig. 24b. Aberrations and omissions distributed per district.

- 1) Three of which are apsidal or "elephant's backs".
- 2) Sixteen monuments were not included in this figure because it could not be ascertained whether the height of their superstructures has remained the same.

The situation in South Arcot is entirely different, since no clusters can be formed based on the presence of true variants. The most frequent anomaly in this district is an ekatala with six pilasters on each wall, indicated as I-2-b, type, which is unknown in the delta proper. The shrines at Jambai, Erumbūr, Jambūr and Tirunāmanallūr (indicated as J, E, B and T on map 5) are the only vimānas with four pilasters in this area. The last three are, moreover, the only true

Table A.

Anomalies in the distribution-pattern in the entire Kāverī area on map 5.

Name of the village	type of vimāna	locational context
Nirpalani	II-2-c	I-1-a
Nārttāmalai	III-5-c	
Chittūr	II-2-b	
Tirukkaṭṭalai	II-2-b	
Śōmūr	I-1-a	II-2-b
Virālūr	I-2-b	
Tudaiyūr	I-2-a	
Lalgudi	I-2-a	
Kumāravayalūr	I-2-a	
Perungudi	I-1-a	
Uyyakkōṇḍān Tirumulai	(II)-1-a	
Śendalai	II-1-a	I-2-a
Gōvīndaputtūr	I-2-a	II-(2,3 or 4)-b
Tirukkaliṭṭattai	I-1-a	
Kōyildēvarāyanpēṭṭai	II-2-a	
Puḷḷamaṅgai	III-4-b	
Puñjai	I-1-a	I-2-a
Tirumiyachchūr	I-1-a	
Tiruvārūr(Wan.)	I-1-a	
Tirukkoḷḷikkādu	I-1-a	
Ramanātha Kōyil	I-1-a	
Pateesvaram	II-2-b	
Kuttālam	II-2-b	II-4-b
Ānangūr	II-4-b	
Kuhūr	II-4-b	

ekatalas of the type I-(1 or 2)-a and are therefore marked on the map as Coḷa. The true Coḷa dvitalas at Kīlūr, Kīḷiyanūr, Grāmam and Vriḍdhāchalam (K, Ki, G and V respectively), all belonging to category II-2-b, are indicated in the same way, as is done for the true II-(3 or 4)-b shrines at Tiṇḍivanam (Ti) and the two monuments as Dadapuram(D). All other temples show aberrations in their layout. These will be discussed later. The distribution of the ten Coḷa buildings in South Arcot is such that regionalization on the basis of a combination of characteristics is not possible. If, however, we look at the main deviating types I-2-b, (I or II)-1-b and II-2-a excluding the Coḷa variants, we discover a core consisting of shrines with the simple, square ground-plan variant -1-. This area is surrounded by a shell characterized by the -2- variant, while the whole region is bounded in the north by an area filled with temples showing the -3- or -4- layout.

In the old Pallava territory the distribution-pattern is chaotic. The Pallava solution for small shrines was the ekatala or dvitala on a simple square base: I-1-(a or b) and II-1-b. The combination I-1-a is obviously a large phenomenon in the east and west of the Palar area (map 5). The large number of tritalas or even taller buildings in this region is striking. Some of these were definitely built by the Pallavas and are located near the borders. In view of the distribution of the I-1-a and II-2-b types — the first at the borders, the second in the heart of the former Pallava territory — we are inclined to believe that the stylistic impulse in this region began at the borders and moved inward slowly and that consequently the "true" Coḷa monuments near the borders are older than those in the central part of this area. The last remark can only be understood when we know the sequence in which the monuments came into being.

Chronology of the uniform regions.

We start with a discussion of the Kāverī region, since we assume that it was there that the new variants were created. The dates in map 5a and Fig. 25(p.92) are based on the earliest inscription found on a particular temple, at least according to Balasubrahmanyam and Barrett.⁴⁾

The earliest records are found in the I-1-a area of the Muttaraiyars. This form was applied already in A.D.864 and possibly long before that. Around 875 a differentiation occurs. The only I-2-a and II-2-b vimānas were built at Tañjāvūr (no. 7 and nos.4-5 on map 5A respectively), while some ten years later the two II-(3 or 4)-b variants of the monuments at Tillaisthānam and Tillaṅṅyārū seem to have been realized (nos.2 and 3 respectively). The dvitalas continue to be built during the whole period covered by our investigation and until A.D.970 no further development of the vimāna can be observed; rather a return to older forms seems to have taken place. The I-2-a form becomes dominant at the time the vimāna at Kōṇērīrājapuram in the eastern delta was built (map 5A). This by then old-fashioned style declined even further into the I-1-a type represented by the four temples lying in a small strip along the Pūḷai-Tirukkoḷikkāḍu road (P and Tk on map 5 respectively). The coastal shrines are dvitalas but their ground-plans vary. The tritala, tried out on the beautiful Brahmapurīśvara at Puḷḷamaṅgai (P on map 5A), was never repeated, for the only other tritala in this area — located at Tiruvārūr — was built according to other principles. It represents a true type: III-5-c and was raised ca. A.D. 970, whereas the tritala at Puḷḷamaṅgai is a III-4-b vimāna constructed almost a century earlier.



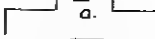


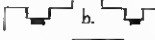
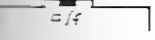
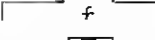


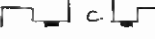
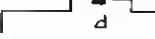

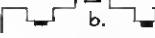


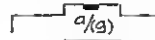
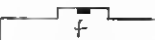

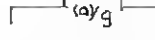

(1) based on inscriptional evidence		(2) based on structural difference	(3) arbitrary arrangement
	872	878-84 	
	876	883 	
	876	890 	
	878	889 	
	881	890-900 	
	883	918 	
	889	940-969 	

Fig. 26. The sequence of the Sapta Sthānas as proposed by Balasubrahmanyam (1) and Barrett (2) or arranged arbitrarily (3).

(a=Tirukkandiyūr; b=Tiruppalam; c=Tiruvēdikkudi; d=Tiruchchātturai; e=Tillaisthānam; f=Tiruvaiyārū; g=Melatiruppūndurutti).

At this point. None of these temples can be dated accurately on inscriptional evidence. The development as suggested on p. 92 is only plausible if the shrines at Tiruvaiyārū and Tiruvēdikkudi were built before those at Tiruchchātturai and Tillaisthānam, preferably before A.D. 885. Barrett denied this, but according to Balasubrahmanyam the two former temples are indeed earlier. So, he dated the shrines at Tiruppalam and Tillaisthānam between A.D. 870 and 880. However, his chronological arrangement does not show a development either, i.e. from a simple to a complex ground-plan. When dates can be apparently interpreted in different ways, it is even possible to assume a development of the original I-1-a vimāna into the II-(3 or 4)-b variant into the finally most often applied types I-2-a and I-2-b. We opt for the last view. However, some explanation is needed.

In the centuries preceding the rise of the Coḷa empire, the most important types were the III-(5,6 or 8)-c type, both under the Pallavas and the Cāḷukyas. In addition to this, the II-3-b vimāna occurred. Examples of this simple type are the shrine at Bādāmī (Pl. 8) and the Arjuna Ratha at Māmallapuram (Pl. 1). The ground-plan -1- is frequently found in the old temples at Aihole, such as the Meguti and number 52 of the Galagnātha group as well as at Māmallapuram, viz. the Shore Temple (Pl. 4), the Mukunda Nayanar and the Olakaneśvara. The Makuteśvara near Bādāmī, the temple at Saṇḍūr and the Sundara Varadarāja Perumal at Tirumallūr have the -2- variant. The last shrine has a niche in the centre of each wall, which protrudes even more. This lay-out can be noticed again in

the monuments at Tiruppalanam and Tiruvārūr. It is, in fact, the -5- variant (Fig. 23, p.87). The first Coḷa architects could choose from all these examples. It seems likely that the Muttaraiyars only built according to the I-1-a plan. It can be imagined that an ambitious king like Āditya I would not be satisfied with this simple composition, for by this time he already ruled over a rather large area, including the important town of Tañjāvūr. So he may well have ordered his sthāpatis to prove their creativity by designing new and more impressive types of temples. It is even possible that he commissioned them to construct the seven shrines mentioned in the caption of Fig. 26: the intriguing Sapta Sthānas (appendix 7). By doing so he himself created a kind of playing-ground on which his architects could try out their ideas. Since four out of these seven monuments are already taken by both Balasubrahmanyam and Barrett to be examples of the earliest koyils (Fig. 25, p.92), it seems valid to consider the whole group as a unit. Assuming that they were all built within a short period, they will naturally show a rich variety in form and detail, the more so because they are located at short distances from each other.

The Sapta Sthānas can be divided into three "groups": three shrines with a II-2-b form, each crowned with a round or square śikhara; one ekatala of the I-2-a type with an octagonal platform and the remaining three which may for convenience sake be characterized as II-(3,4 or 5)-b vimānas, also showing variation in the shape of their śikharas. This increases the impression that the Sapta Sthānas indeed functioned as a training ground and that the artists fearlessly ignored the dogma of the supposed, regional preference for the square śikhara, which is found in the nearby Muttaraiyar area.⁶⁾

Fig. 26 (p.93) illustrates the chronologies proposed by Balasubrahmanyam (1) and Barrett (2). A third column has been added in which the order is arbitrary (3). The arrangement based on either inscriptional evidence (1) or the development of the ground-plan (2) does not play a role in the sequence of the last column. This third column tells us as much or as little as the first two. Therefore, on grounds of the spatial and historical pattern (maps 5 and 6) the possibility that the I-2-a and II-2-b vimānas were only introduced in the delta after the completion of the Sapta Sthānas should be considered. This would imply that a new period of temple architecture probably started around A.D. 890. We now have to see whether this assumption can be supported by dated developments in the outer provinces.

Turning our attention to the monuments in South Arcot we are confronted with two problems. The first question that arises is : how fast did this sudden change in temple architecture penetrate into the other areas and how far did the

... of the new master-builders reach? Was South Arcot the tray on which novel ideas were presented and from which the architects in the Palar — possibly enriched with an idiom of their own — could make a choice, or did South Arcot remain the backwater it had been during the reign of the ...?

The second problem is : where did the new developments start and in which direction did they invade the "unspoilt" countryside. These questions can be answered partly by comparing the data on maps 5, 5A and in Fig. 27, p. 96). The evolution-pattern in South Arcot has a suggestive force. We are inclined to interpret it as an illustration of the hypothesis that the new ideas were derived from an old "core" as their starting-point — in this case an area with round, square koyils — by architects who were building at first only the shrines with a -2- layout and later on monuments with the more complicated -3-or-4- ground-plan. This reasoning seems to be confirmed by the dating of monuments with dates based on foundation inscriptions or on other records. The oldest temple in this district is located in the "core" at Tiruvāmatūr (on map 5A). It can be dated ca. A.D.913. The I-2-a koyils at Erumbūr(E) and Kunāmanallūr(T) respectively to the south and north of the old "core", were founded in A.D.935. Between A.D.943-980 shrines of the II-2-b types were constructed at Kīlūr and Vriddhāchalam (K and V respectively on map 5). The monuments at Jālapuram (D), located north of the -2- area, were financed by members of the royal household in ca. A.D.1006.

Anomalies in this pattern are the koyils at Bāhūr(B) and Tiṇḍivanam(Ti), whose shrines are an untimely appearance and out of place. The I-1-a koyil at ... dated ca. A.D.965 is an anomaly in the -2- region. The II-3-b vimāna at ... anam, although properly located in the -(3 or 4)- zone, is dated A.D.960 and is therefore an anomaly in time, for a sequence in a style development running from II-2-b via I-1-a to II-3-b is unlikely. Both shrines are situated in the "core district" since Parāntaka I had his head-quarters here during his struggle with the Rāṣṭrakūṭa king Kṛṣṇa III. So, perhaps both monuments should be considered anomalies in both space and time due to the war.

Although it can be concluded from the above that Early Coḷa influences must have been felt in South Arcot, the process was definitely slow. Between the first occurrence of a I-2-a vimāna in the delta and its appearance in South Arcot some 50 years elapsed (cf. Figs. 25 and 27 on pp.92 and 96). The II-2-b monument took even longer to be realized in the temple at Grāmam dated ca. 1043. The II-1-b koyil at Tiruvāmatūr founded in A.D.913 resembles Pallava monuments and seems to fill the gap between the end of the Pallava period and

Firstly, there is obviously a strong preference for tritalas in the north ca. A.D. 1000 (Fig. 27), which indicates a continuation of Pallava influence, though the tritala was never popular with the Early Coḷas. This influence can be observed in the existence of many temples with the simple, square layout. Secondly, after the Coḷas had copied the II-3-b type from the Pallavas, their enthusiasm for this specific form waned till the reign of Rājarāja I when a temple was built with this layout, viz. that at Tiruvadandai raised ca. A.D. 1000. The Somanāthesvara at Mēlpādi was designed shortly before A.D. 1000 and represents the first II-2-b koyil in the Palar area. Apparently, this variant needed a hundred years to bridge the distance between the centre of origin and this town situated on the border of the Coḷa empire.

Summarizing the above we may draw the preliminary conclusion that the Coḷa temple starts ca. A.D. 850 somewhere south of the undivided Kāverī in the form of I-1-a vimānas. This type was temporarily replaced by dvitalas which were popular in the Palar region and the area where the Pallava and Cāḷukya idioms met. The II-(3,4 or 5)-b temples of the Sapta Sthāna group represent the subsequent elaboration. In combination with the original Muttaraiyar type, these complex dvitalas were then soon reduced to the smaller variants I-2-a and I-2-b, probably due to Muttaraiyar influence. These forms, so characteristic of the central Coḷa area, reached the outer provinces only after considerable delay and without much conviction. In South Arcot the II-3-b combination remained unpopular till the construction of the shrine at Tiṇḍivanam. The tritala variety, is a form which the Coḷas only dared to apply in the Acalesvara at Tiruvarur. This confirms our impression that experiments with ekatalas and dvitalas went on for at least a century before a reliable design and technique for the construction of large, granite buildings was discovered. Fig. 28 represents this course of events.

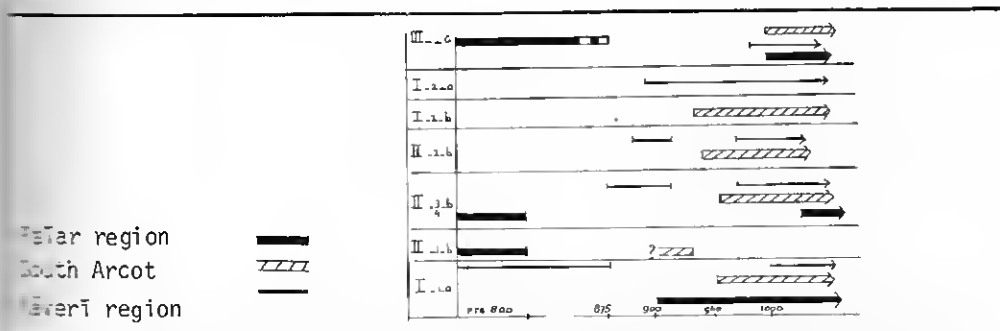


Fig. 28. Approximate introduction and disappearance of the vimāna variants.

2. Distribution of the temple variants based on the number of devakoṣṭhas per vimāna wall

2.1. Introduction and definition.

Most monuments covered by our survey have niches which can be defined as follows:

a niche is a rectangular recess in a wall, flanked by pilasters which are shorter than the others and coped by a lintel which rests on two short vira-kaṇṭhas. The floor of the niche coincides with the floor of the building, i.e. the paṭṭikā. The pilasters are also standing on this floor. The niche is crowned by a makaratorāṇa, placed between the uttira and the lintel.

Because a niche is usually meant to accomodate the image of a deity (deva or devī) it is called a devakoṣṭha. Although this type of niche is very common, there are exceptions, especially in the small area north of Tañjāvūr. Here we are confronted with cut-out niches, the absence of makaratorāṇas and a varying number of niches in the wall of either the vimāna or the ardhamaṇḍapa. This is indicated in map 6. From this map the conclusion can be drawn that in general the Coḷas preferred to build shrines with one niche in each temple wall, i.e. one niche in each vimāna wall and one in each ardhamaṇḍapa wall. The Muttaraiyars, on the contrary, seem to have had a strong preference for shrines without devakoṣṭhas. They carved out their deities in blocks placed directly under the kūdu of the śikhara (Fig. 29a, Pl. 17).

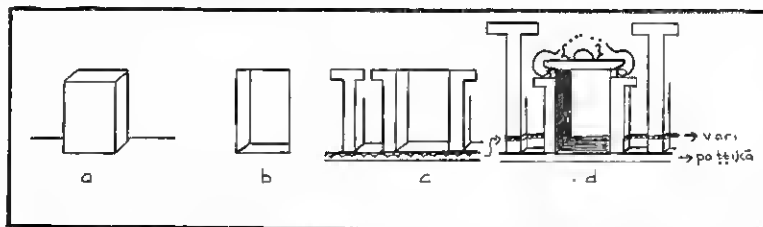


Fig. 29. The supposed development of the devakoṣṭha from regional proto-types. (a) Muttaraiyar; (b) Cāḷukya; (c) Pallava and (d) Coḷa.

The Cāḷukya devakoṣṭha belongs to the cut-out type (Fig. 29b, Pls. 5 and 9). The Pallava monuments seem to illustrate the fact that their sthāpatis were continuously trying out various ways to accomodate a deity in all its glory (Fig. 20c, appendix 3). This process was finally solved by the Coḷas who adapted the basic Pallava concept for the upper part of the niche and changed the lower part in order to provide the image with a more solid footing (Fig. 29d). As to the number of niches, the concept of one niche in each wall of an ardhamaṇḍapa, as for in-

in the Sundara Varadarāja Perumāḷ at Uttaramallūr, found favour in the eyes of the Coḷa artists, for this type of ardhamaṇḍapa starts to appear in all the entire Kāverī region. So it looks as if the sthāpatis of the first Coḷa kings could not make up their minds as to what type of niche to design in the absence of any previous standardization and which number of niches was the most satisfactory. Since, even in the eyes of the modern scholar, the Sapta Sthānas seem to display this hesitation, we believe that they are the oldest examples of Early Coḷa style. In the next paragraph we shall deal with this point more extensively. Here we shall try to determine the role of the late Pallava monuments in order to show that indeed one architectural problem remained unsolved.

Returning to map 6 we notice that the oldest Pallava buildings (appendix 3) were carved out or constructed without actual niches. Some are located at Māmalla and date from before A.D. 728, the year in which the reign of Narasiṃha II, Rājasimha ended, although the probably older, unfinished monolith, the Valaiyaṅkuṭṭai, may be regarded as the first representative of a vimāna adorned with short niche pilasters. Later shrines, all built before A.D. 846 at Tiruvannamalai and Uttaramallūr, are marked by experiments with niches in the walls of the vimāna and the ardhamaṇḍapa. Especially the large monuments in the latter dating from Dantivarman's reign (A.D. 796-846) are interesting, for they are the first temples with niches before the kōyils at Tiruttāni (Tt) and Brahmadeśam (B) were constructed (Pl. 70). These two shrines are usually attributed to ca. A.D. 800 and are considered to be either representatives of a transitional phase or already Early Coḷa. Since they are both squares without recesses, they do not possess a characteristic Early Coḷa layout. The vimāna at Brahmadeśam is a triśikhara, that at Tiruttāni is crowned by an apsidal śikhara. These two features are not typical Early Coḷa either (cf. maps 5 and 12). However, when studying the appearance of their niches carefully, it becomes clear that they still belong to the Pallava idiom. The floor of their niches is still at least a few centimetres higher than the paṭṭikā and is accentuated by a so-called vari, a platform normally decorated by a padmabandha. This vari extends under the short pilasters as well. This concept was already tried out on the Mātāṅgeśvara built under Nandivarman II, Pallavamalla (A.D. 732-796), where it was added as an individual base of the pilasters. The makaratoraṇa forms a semi-circle sheltering deity seated comfortably in that wide space, as the Pallavas usually allowed these small figures to do. The makaratoraṇas on the walls of the ekataḷa at Tiruttāni are different in the sense that the semi-circle is reduced to a small role and the makaras above the niches of the ardhamaṇḍapa are transformed into pilasters. None of these motifs are found on the shrines considered to be the oldest

in the delta (appendix 6), so we may safely assume that this monument also belongs to the Pallava style, be it to its final phase. Two other vimānas with cut-out niches are located at Takkōlam (Ta), not far from Kāñcī and at Veļachchēri(V) on the coast south of Madras. The former is a II-3-b vimāna of which the walls and superstructure are of brick. This combination is definitely not Early Coḷa, since Āditya I boasted that he constructed buildings in granite instead of in brick and wood. The combination of a granite adhiṣṭhāna with a brick superstructure was quite common in the Pallava area as the large monuments at Uttaramallūr still prove: the Sundara Varadarāja Perumāḷ, the Kailāsanātha and most probably the Vaikuntha Perumāḷ as well, for its granite base survives, though its brick superstructure has apparently collapsed. The shrine at Veļachchēri is supposed to date from the days of Gaṇḍarāditya, i.e. from ca. A.D.954. With its strange niche supported by a "footboard vari" above the paṭṭikā — slightly wider than the niche itself—and its ribbed broad podiga it resembles the temple at Takkōlam. In case this date is correct, this small ekatala with its square śikhara would be contemporary with the far taller and more complex vimānas built in the middle of the 10th century, turning it into an anomaly in both space and time. Finally, there is an Amman shrine in the compound of the Vedapurīśvara at Tiruvanniyūr. The practice to erect a temple for Pārvatī, north of the main shrine became popular only in the days of Rājendra I. The oldest inscription on the walls of the building in question dates from A.D.1017, the year in which this koyil may indeed have been constructed. Its archaic "footboard vari" and consequently Pallava niche, can only be explained if we assume that the shrine is a copy of the Śiva temple existing here in the days the Amman shrine was added. The present Śiva koyil, however, is much younger and records from the former, probably brick, building are missing.

From this basic discussion of the niche it may now be clear that the architects of the first powerful Coḷa kings, Vijayālaya and Āditya I, had to find their own way in designing a more dignified niche than that which the Pallavas had left them and that they were free to choose any number of niches: from no niches at all (Muttaraiyar buildings) to three or even more (cf. the Arjuna Ratha and the Kailāsanātha at Kāñcī respectively).

2.2.Distribution of the variants; determination and description of uniform regions.

The absence of niches is characteristic for the I-1-a temples of the Muttaraiyars (cf. maps 5 and 6). The location of the nicheless Sundarēśvara at Śendala

Exactly west of the Sapta Sthānas is an indication that the Muttaraiyars at the time possessed the apex of the delta. The shrine at Vēdāranyam (V on map 6) in the southeastern tip of the delta, also has no niches. The Śiva koyil at Panangudi (P) — quoted by most authors as a typical example of the Muttaraiyar shrine — actually has one niche in each wall and lies in the area where all temples have one niche in each wall of the vimāna. Consequently, this shrine shows a closer relationship with that at Tirukkaṭṭalai (Tk) than with, for example, the shrine at Kaḷiyapaṭṭi (Ka) in the centre of the I-1-a region. Nevertheless, some authors attribute the koyils at Panangudi and Kaḷiyapaṭṭi to Vijayālaya (A.D. 1133-1157).⁷⁾

Of the twelve vimānas with three devakoṣṭhas in each wall, four are lying in the area of the Sapta Sthānas, i.e. at Tillaisthānam (Ti), Tiruvēdikkudi (Tv), Tiruvālvādi (Tm) and Tiruppalanam (Tp). Six others are distributed over the delta. They are located in the central part at Kumbakonam (K) and Tiruvirupudūr (Tr); along the coast at Tirukāḍaiyūr (Td) and Nāgapaṭṭinam (N); in the south at Śembyan Mahādevī (SM) and Tiruvārūr (T). Finally, the vimānas at Tiruchchennampūṇḍi (Tc) and Śrīnivāsanallūr (S), are situated west of the Grand Canal. It should be noted though, that the temples at Śrīnivāsanallūr and Tiruppalanam should be considered as two very special three-devakoṣṭha vimānas. In the former the lateral niches are actually recesses between pilasters of equal length (Pls. 31a-b), whereas in the latter the lateral niches do comply with the definition, but the central niche does not, for it is merely a recess (Pl. 23).

As the distribution of the vimānas with three devakoṣṭhas in each wall does not show a concentration, the delta can only be divided into areas with or without niches in the walls of a vimāna. This division is not very helpful in understanding the increase of the number of devakoṣṭhas in the course of time. In order to trace this development in a different way we have indicated in map 6 how many niches have been designed in the walls of the ardhamandapa. This allows us to conclude that, with the exclusion of the shrine at Tillaisthānam (Ti), all other Sapta Sthāna vimānas with three devakoṣṭhas per wall are located in the area where the ardhamandapas have only one niche per wall. This applies also to the shrines at Tiruchchennampūṇḍi (Tc) and Śrīnivāsanallūr (S). Moreover, all these temples lie in the region in which the ardhamandapa is still directly connected to the garbhagṛha, indicated as type A in map 6. The other vimānas with three devakoṣṭhas in each wall, located more to the east, are situated in the area where the ardhamandapa is linked up with the garbhagṛha by means of an antarāla indicated as type B. The Nāgeśvara at

Kumbakonam (K) belonging to type A is a lonely exception in this B-region. This could mean that not all three-devakoṣṭha vimānas date from the same period.

A regional division of the Palar area and South Arcot on the basis of the number of niches is hardly possible. With the exception of the Pallava temple only one niche in each vimāna wall is customary. The location of the three "recess temples" in South Arcot indicates that in the beginning of the 10th century the architects of this region had not yet decided how to solve this problem (Fig. 27, p.96).

2.3. Chronology of the uniform regions and of the temples within these regions.

2.3.1. Chronology of the regions.

By comparing the data in Fig. 25(p. 92) with those on maps 5A and 6 the chronological sequence of regions in the delta based on the number of niches in a vimāna can be established. Fig. 30a is a simplification of the spatial arrangement of the five regions distinguished on map 6. Fig. 30b shows their chronological sequence. In the oldest area(I) only small ekatalas without niches are found. After A.D.880 the building activities moved to the apex of the delta(II). At first, the vimānas built in this region contained recesses and three niches in each wall. Between A.D.884-910, however, the number of niches was reduced to one. These two areas are surrounded by a third in which from A.D.884 till the end of the following century koyils were designed with a -2- layout and only one devakoṣṭha in each wall(III). According to this preliminary chronology the short period of roughly 25 years between A.D.884-910 saw the construction of temples with either three or one niche in each wall, depending on their ground-plan. The year A.D.910 is that of the oldest inscription on the Brahma-purīśvara at Puḷḷamaṅgai. This temple is the earliest known example of a complex vimāna without lateral niches in the recesses. To the east of the third region is a fourth in which between A.D.980-1000, vimānas were raised containing once again three niches in each wall(IV)⁸⁾ In view of the diffusion process originating in the Sapta Sthānas in the west and expanding towards the east — a fifth and younger region seems to exist east of the second group of three-devakoṣṭha vimānas(IV) where the temples have only one niche in each wall(V).

In South Arcot the small area with so-called "recess vimānas"(maps 5A and 6) seems to be older than the surrounding region in which koyils were built with one niche in each wall. Comparing the data in Fig. 27, p.96 with those on map 5A we may conclude that the change occurred between A.D.935 and 943.

Along the Palar there is no obvious differentiation and so, a division is not possible.

Chronology of the temples within the regions of the delta.

Since the dates of the Sapta Sthānas as suggested by Balasubrahmanyam and Barrett do not reveal a direction in whatever style development (cf. pp.92-93, Fig. 26), we assumed the rather unusual phenomenon of an evolution from temples with three niches in the walls of their vimānas to only one niche per wall — at least in the early phase of Coḷa architecture (pp.94-95).

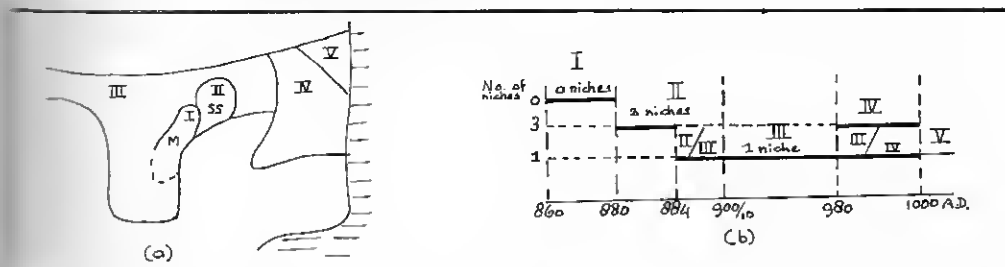


Fig. 30a. The five subregions in the Kāverī delta. M = Muttaraiyars; SS = Sapta Sthānas.

Fig. 30b. Proposed chronology of the five subregions based on the number of niches in the walls of the vimānas located in these regions.

Then the shrines at Tiruchchātturai and Panangudi are disturbing elements in the early period, at least when we accept the dates attributed to them by Barrett and Balasubrahmanyam (Fig. 25 p. 92). Furthermore the koyils at Kumbakonam, Kanchennampūṇḍi and Śrīnivāsanallūr would then seem to have been designed too late. Again, if Balasubrahmanyam is right, the vimānas at Tiruvaiyārū, Tirukkandiyūr, Kilaiyūr and Tirukkaṭṭalai do not fit into Barrett's theory, though the latter dated the last temple on the basis of its ground-plan to ca. 879. On the other hand, Barrett attributed the shrine at Panangudi on the basis of its ground-plan, i.e. variant -1- but without any inscriptional support to ca. A.D.875. However, the sudden appearance of a devakoṣṭha with all the characteristics in a region in which until then only "bare boxes" had been customary, is quite revolutionary and the small shrine of Panangudi does not display the grandeur to be expected of such a building. The dates of the imposing koyils at Tiruvaiyārū, Tirukkandiyūr, Kilaiyūr and Tirukkaṭṭalai are not fixed either. The inscriptions on these shrines allow for interpretations other than those suggested by both authors.

Leaving aside all these uncertain I-2-a and II-2-b monuments for the time being, we wonder what may be revealed by a line of thought which starts out

from an abrupt transition of vimānas without devakoṣṭhas to those with three. In the following section we shall discuss the various temples listed in appendix 7. The numbers between brackets refer to the temples mentioned in the first two columns of this appendix and correspond with those on map 5A.

(1-7). *The Sapta Sthānas* (Pls. 23-29).

The temple at Tiruppalanam (Pl. 23) smoothes down the sharp edges of the abrupt transition to some extent, for the central niche is a recess and on the lateral niches comply with the definition, though the makaratoraṇas are lacking. These aspects added to the unique ground-plan of variant -5-, reveal the eccentric character of this shrine when compared to all other temples in the delta. Its concept obviously found no mercy in the eyes of later sthāpatis. Consequently, it seems likely that this is the oldest of the Sapta Sthānas and that the artists went on looking for more satisfactory forms, which, presumably, materialized in the monuments at Tillaisthānam, a II-3-b temple with a square śikhara (Pl. 24) and at Tiruvēdikkudi, a II-4-b vimāna with a round śikhara (Pl. 25). The construction of both monuments must have been taken place before A.D.884, the year in which the shrine at Tiruchchātturai — the first II-2-b temple? — existed, a date on which Śaṅkarabhaṇḍya and Sarre for once agree completely (Pl. 26). Since the makaratoraṇa was not yet applied over the niches of the temple at Tillaisthānam and not even roughly indicated, whereas this concept was successfully adopted in the design of the shrine at Tiruvēdikkudi, it seems quite reasonable to suppose that the vimāna at Tiruvēdikkudi is the youngest of the first group and was possibly finished during the construction of the koṭyil at Tiruchchātturai.⁹⁾

According to us the II-2-b vimānas of the Sapta Sthānas may have been built between A.D.883 and 890. The ekatala at Melatiruppūndurutti (I-2-a) was most probably also designed before A.D.890. These assumptions are based on developments which will be discussed in the next paragraph (p.111). A further refinement in dating seems irrelevant for the time being, because the II-(3, 4 or 5)-b vimānas form a roughly contemporary group which together are only slightly older than the II-2-b koṭyils. Together with the I-2-a shrines they determined the later structural developments of Coḷa architecture. The temples within each group are mutual exchangeable. In fact, the greater the variety, the greater the possibility that we are dealing with an experiment.

Whether the vimānas with three devakoṣṭhas in each wall and a II-(3,4 or 5)-b ground-plan are older than the II-2-b temples with one niche in each wall can only be decided after we have discussed several II-(3 or 4)-b vimānas with

niches in each wall outside the small area of the Sapta Sthānas. For, according to our theory, these must have been built in the period that the architects of the Sapta Sthānas were still experimenting with the II-2-b type. In Pl. 25 (p. 92) and appendix 7 we can see which temples, according to Barrett and Balasubrahmanyam seem to refute our theory. These are the Nāgeśvara at Kumbakonam(8), the Śaḍayar Koyil at Tiruchchennampūṇḍi(9) and the Koranganātha at Śrīnivāsanallūr(10), the last, however, only when its cut-out niches turn out to be part of the original planning.

8. *The Nāgeśvara at Kumbakonam* (Pls. 30 and 92 a).

The Koyil may have been built around A.D.885 according to inscriptional evidence. Barrett, however, considered it to be an early temple of Parāntaka I.¹⁰⁾ It has three striking features. Firstly, it has — like the shrine at Tiruvēdikkudi — beautiful makaratorāṇas over the central niches while over the lateral niches only vaguely decorated makaratorāṇas are indicated. Secondly, a small element has been added to the adhiṣṭhāna in exactly the same place and with exactly the same composition as on the base of the shrine at Tiruchchātturai, dating from A.D.883, viz. a lotus-moulding directly over the upāna(cf. Pls. 26 and 30). Thirdly, the śikhara displays an experiment, for it has a śukanāsa in front of the eastern grīvā-niche. Experiments in the shape of the superstructure — including the śikhara — are also visible on the monuments at Śrīnivāsanallūr and Puḷiandai dating from the same period. On later shrines the shape of the upper part seems to be standardized, an aspect which will be discussed in the next chapter.

9. *The Śaḍayar Koyil at Tiruchchennampūṇḍi* (Pls. 34, 35a-b).

This monument is even more remarkable than the previous one. The ground-plan is the same as that of the temple at Tiruvēdikkudi (Pl. 25). Every central prasthā is adorned with a makaratorāṇa which gives — in spite of serious damage — an excellent impression of its original beauty. There is no indication whatsoever that a makaratorāṇa over the lateral niches was planned. This lends the temple an older look than the Nāgeśvara at Kumbakonam. Barrett dated the Śaḍayar Koyil ca. A.D.920, because none of the inscriptions on this building are older. However, this does not necessarily exclude the possibility that the shrine could date from the end of the 9th century. Until recently the monument seemed irreparably damaged, as can be clearly seen in Pl. 34. That the Archaeological Survey of India has yet managed to make a recognizable building out of it, is no mean achievement(Pl. 35a). In itself the absence of earlier records

can therefore be explained. It is less easy to trace the source of the shape of its adhiṣṭhāna. It has always been assumed that this type of base with a kapota instead of a paṭṭikā, was introduced in the delta by the sthāpatis of the Brahmapurīśvara at Puḷḷamaṅgai, which is supposed to date from the first decade of the 10th century. However, with this temple a period starts in which only vimānas with two pañjaras in every wall instead of lateral niches, were designed. This period lasts for about half a century, as we shall show further on.¹¹⁾ Consequently, it seems unlikely that the shrine at Tiruchchennampūṇḍi could have been built after A.D. 910. Moreover, the composition of its base is not new but may have been copied from older Cāḷukya temples (Fig. 3, p. 44, Pls. 5-9). In our opinion this adhiṣṭhāna is an indication that the architects of the Sapta Sthānas were still searching for the proper composition of this part of the temple. From the II-2-b vimānas of the Sapta Sthāna group also show that a permanent solution for the base had not yet been found. Although we shall deal with this matter in more detail in chapter four, it may already be pointed out here, that the oldest II-2-b building, i.e. that at Tiruchchātturai, already has the small padmabandha between the upāna and the jagatī. The other two monuments of this group of II-2-b vimānas have the well-known and typical Coḷa "jagatī" in the shape of a gigantic lotus.

We believe that the temple at Tiruchchennampūṇḍi must have been built after that at Tiruchchātturai, but before the Nāgeśvara at Kumbakonam, because there are no makaratoranas over the lateral niches. The Nāgeśvara must be dated before the Brahmapurīśvara at Puḷḷamaṅgai, for the latter has already one devakoṣṭha in each vimāna wall and pañjaras instead of lateral niches. This implies that the record of Āditya I from A.D. 886 was indeed inscribed in that particular year on the walls of the Nāgeśvara.¹²⁾ Only one problem remains, i.e. whether the Koranganātha at Śrīnivāsanallūr can also be attributed to the period between A.D. 884 and 910.

(10). *The Koranganātha at Śrīnivāsanallūr* (Pls. 31a-d).

The earliest inscription on this temple is dated in A.D. 894. Balasubrahmanyam, as usual, immediately used this record for a stylistic attribution without supplying a single sound argument. Barrett, on the contrary, believed that this koyil was erected ca. A.D. 927 on account of the presence of two inscriptions of Parāntaka I dated in that year. He derived his arguments partly from these records and partly from the architectural style of the building. His reasons are that the shape of the ground-plan (II-3-b) has already become complicated; secondly, that the composition of the adhiṣṭhāna does not fit into the develop-

suggested by him for this aspect of a temple; thirdly, the presence of an antarāla, a completely unknown element in Early Coḷa shrines; finally, and most important, the position of a Rājakesari record mentioning the year 24, which frequently must have been issued by Āditya I, since it is a high regnal year. Though sufficient space was available, this record is squeezed between the inscriptions of Parāntaka I. According to Barrett this implies that all these records were engraved at one and the same time.¹³⁾

None of the four arguments appeals to us. For, the more complicated the floor-plan, the better it fits in with our view that it is an old temple built long after the first Sapta Sthānas were designed (p. 103). The unusual base does not surprise us. Its two lower parts are identical with those of the temple at Tiruchchennampūṇḍi. Barrett's argument that the base of the Koranganātha does not fit into the phase of Āditya I cannot be maintained. It could equally be asserted that the first typical lotus adhiṣṭhāna does not represent the first phase. The fact that it does, is due to its having been copied widely, while the floor of the building at Śrīnivāsanallūr obviously was not. However, this does allow us to eliminate this shape from the list of characteristics of the temple of Āditya I. Moreover, there are two more examples, viz. the base of the temple at Tirukkāṭṭuppalī, which Barrett himself included in his table¹⁴⁾ and that at Kōranūr, which he did not mention, probably because the vari is missing. However, the vari is part of the temple wall and not of the socle. Characterising a variant on the features not belonging to it, seems a wrong procedure.

The presence of an antarāla is not surprising considering that we are dealing with a sāndhāra vimāna. Consequently, the connection of the ardhamandapa with the garbhagrha does not necessarily have to be identical with that of vimānas with double walls. Barrett's argument becomes less convincing, since he did not apply it consistently. On the one hand, he felt that the presence of an antarāla proves that the Koranganātha at Śrīnivāsanallūr belongs to the 10th century, whereas, on the other hand, he ignored the presence of an antarāla in the shrine at Lalgudi (appendix 7, no. 11), presumably in order to retain it for the 9th century.¹⁵⁾

Finally, the position of the three inscriptions in question could be regarded as an indication that already the scribes of the 10th century considered the Kōyil too beautiful to be spoilt by even more records and therefore decided to use the wall engraved with the older inscription of Āditya I, for the inscription of the days of Parāntaka I — unwittingly causing a controversy some 1050 years later.

The preceding discussion opens the possibility to date the shrine at Śrīni-

vāsanallūr just before the beginning of the 10th century. In fact, its construction in A.D.894 -895 seems quite acceptable, for the temple was situated in a town which was part of the great Pallava realm and which carried the name of its kings, viz. Mahendramaṅgalam.¹⁶⁾ The Pallavas built a number of sāndhāra at Kāñcī and Uttaramallūr, proving their knowledge of this form.¹⁷⁾ A similar shrine existed probably also at Śrīnivāsanallūr and another example is still located at Nārttāmalai, near by. One day the assembly of this town decided that the old temple should be replaced by a new one, preferably as large as the former. The successful architects of the Sapta Sthānas were requested to design a sāndhāra vimāna. It can be imagined that this assignment was a challenge which appealed to their creative mind. They were, however, for the first time confronted with the problem how to divide the relatively long sāndhāra walls into sections, for a sāndhāra is larger and taller than a vimāna without double walls. Consequently, the number of recesses should be larger than in the simpler II-3-b type, viz. four instead of two, at least when this ground-plan is chosen. This difficulty could be solved in several ways, either by adjusting the number of niches to the number of recesses — which means a total number of five niches in each wall — or by designing devakoṣṭhas in the two projections on either side of the central niche. The difficulty with the first solution is that the sculptors could not yet create images for the larger number of niches, implying that they had to leave them empty; the problem with the second solution is that there is not enough space for devakoṣṭhas.

It is obvious that the sculptures which we now see in these recesses are due to later activities, for they are too large for the narrow recesses. In some places part of the side-walls had to be cut away in order to make room for, say, an elbow (Pl.31b). We cannot believe that the architects of a temple designed in such a careful way failed to plan the width of its recesses in accordance with the size of the images and *vice versa* that the talented sculptors failed to take into consideration the measurements of the niches for which they had to carve the present images. Consequently, these well-preserved and stunning figures are obviously later additions. Since we are thus confronted with a vimāna for which its artists could not find a proper solution for the decoration of the enormous wall space we better turn our attention to a monument in which this particular problem was solved, i.e. the kōyil at Puḷḷamaṅgai. The walls of this shrine are decorated with pañjaras on the place where in former temples (empty) niches were applied. As this element is an excellent alternative on wall spaces which are too narrow for a real niche, the skillful sthāpatis of the Koranganātha at Śrīnivāsanallūr would certainly have

use of the idea, had they been familiar with it. All this allows us to date the Rājakesari inscription to Āditya I, which implies that the Korangam temple was constructed before A.D.895.

According to the above reasoning all vimānas with three devakoṣṭhas in each wall and a II-(3 or 4)-b layout can be dated before the beginning of the 10th century. However, on p.102 we assumed that between A.D.884 and 918 buildings with three niches in each wall were also designed, though their ground-plan was far more simple, viz. the II-2-b temples (Fig. 22b, p. 86). The II-2-b shrines at Tiruvaiyārū and Tirukkaṇḍiyūr bear no inscriptions which could support this assumption (appendix 7, nos. 5-6). Barrett attributed the latter (Pl. 28) to A.D. 918, which is, in our opinion, too late, whereas Balasubrahmanyam believed that the temple was built before A.D.876, which to us seems far too early (Fig. 25, p.92).

In our opinion these two temples belong together. Both have the lotus base, from which according to us developed from the minuscule lotus moulding which is found earlier on at Tiruchchātturai (appendix 7, no.4). The makaratorāṇa at Tiruvaiyārū is more or less squeezed into a rectangle.¹⁸⁾ It resembles that at Tiruchchātturai (cf. Pls. 27a and 26). The makaratorāṇa of the shrine at Tirukkaṇḍiyūr resembles the more elegant one at Tiruvēdikkudi hanging over their capitals (cf. Pls. 25 and 28). On comparing these rather primitive makaratorāṇas with the balanced and extremely beautiful makaratorāṇas on the twin shrines at Kilaiyūr (Pls. 33a-b), it is obvious that the latter are younger. Moreover, we must take into account that the two buildings at Tiruvaiyārū and Tirukkaṇḍiyūr are situated quite near to each other. In addition they have a round and a square base respectively — a diversity also found in the twin monuments at Kilaiyūr.

In view of all this it seems justified to assume for the time being that the temples at Tiruvaiyārū and Tirukkaṇḍiyūr were copied at Kilaiyūr. According to both Balasubrahmanyam and Barrett these twin koyils existed already in A.D. 892, although the oldest, completely reliable inscription dates from A.D.932.¹⁹⁾ We are quite prepared to accept that the shrines at Kilaiyūr were founded in the last decade of the 9th century, but it does imply that the three II-2-b buildings of the Sapta Sthāna group were designed between A.D.884 and 892.

We shall return to the above discussion in greater detail in chapter four, where further arguments will be advanced, especially with regard to nos. 11 and 12.

and 14). *The Vāṭatīrtanātha at Anḍanallūr; the Candrasēkhara at Tiruchchendurāi.*

Finally we should like to discuss two temples along the undivided Kāverī.

The Sthāna at Anḍanallūr represents the II-4-b type with one niche in each wall. The oldest inscription on this building dates from A.D.918. However,

these two facts are incompatible with each other, for, in our opinion, only vimānas with pañjaras were constructed in the first decades of the 10th century (p. 106). Not far away is an example of a II-2-b shrine, located at Tiruchchendurai (appendix 7, no. 14) which existed already in A.D. 910, according to one of its records.²⁰⁾ According to Balasubrahmanyam it must have been built before A.D. 893, because inscriptions with high regnal years of Rājakesarivarman,²¹⁾ i.e. Āditya I, are carved on its walls. In one of these a lady called Pudi Adichche Pidariyar is mentioned. In A.O. 909 the same lady is described as consort of Arikulakesari, son of Parāntaka I. This record states that the temple "was built by us", in the past tense. On the basis of this information Barrett concluded that an old, brick shrine was replaced by a stone structure in A.D. 909. However, in our opinion, the promotion of the lady in question to a higher rank must have been the reason to add an inscription in A.D. 909 informing us that the building constructed in or before A.O. 893 had been financed by a lady who had meanwhile become a member of the royal family. We therefore agree with Balasubrahmanyam that the monument at Tiruchchendurai was erected before A.D. 893. It was probably built by the sthāpati of the Vataṭṭīrtanātha at Aṇḍanallūr who could choose from the by then known layouts II-(3 or 4)-b or II-2-b. He added only one niche to each wall of this vimāna since it was already customary at that time to design koils with a reduced number of niches. The bases of both temples up to and including the kumuda have disappeared under a solid pavement, so that it is no longer possible to check whether there are inscriptions on the adhiṣṭhāna which are older than A.D. 909. However, we would not be surprised if older Rājakesari records would emerge on removal of the pavement.²²⁾

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All these interesting developments in the Kāverī region seem to fail to reach South Arcot. On the ekatala at Tirunāmanallūr (Fig. 27, p. 96) the first complete devakoṣṭha is introduced about 50 years later, i.e. ca. A.O. 940. Until then — and even afterwards — recesses are considered adequate accommodations for images, to be precise: the modest number of one in each wall (cf. Fig. 27 and map 6).²³⁾ This statement seems to be contradicted by the dvitala at Kīliyanūr attributed to the 9th century. This temple carries an inscription dating from year 10 of a certain Parakesari. Balasubrahmanyam assumed on grounds of the shape of the koil in question that it is a record of Parāntaka I. His mistake here is, that he ignored the location in an outer area and used only the shape as a criterion for dating. This train of thought is in itself legitimate, but one wonders why no more attention is paid to the quality of the decoration. For apart from the introduction of new forms, the hallmark of the Āditya I phase is

placement, which is entirely missing in this case.²⁴⁾ As there is no internal evidence the building has to be dated on grounds of its stylistic aspects. However, this shrine displays no distinct ornamental details, for there is no decoration and where it should have been carved out the shape of the recessed blocks of rough stone are indicated only vaguely. It is obvious that more information is needed before an opinion about the situation in this district can be formulated. We are, however, inclined to believe that the phase of the so-called "recess vimānas", represented by the ekatalas at Tiruvāmattūr, Tiruvārūr and Grāmam, preceded that of the shrines with only one niche in each wall, i.e. those at Tirunāmanallūr and Kīlīyanūr. In chapter four we shall put forward arguments in favour of this suggestion.

In the Palar area we can establish a complete change (Fig. 27, p.96). For, the Pallava monuments are characterized by numerous niches in the cut-out version, whereas all later, non-Pallava buildings belong to the type with one niche in each wall. The oldest deviation is the Gaṅgaikōṇḍacoḷeśvara at Kūḷambandal dated A.D.1034. This is a II-4-b vimāna with three devakoṣṭhas in each wall. The development seems to run via a short period around A.D.1000 in which the kumbha-paṇjaras appear on the walls of temples which have only one niche in each wall.²⁵⁾ From the above it can be inferred that structural changes in Early Coḷa architecture are restricted to shrines situated in the Coḷamaṇḍalam proper. Apart from a shrinking in size of vimānas (p. 97, Fig. 28), and a reduction in niches in their walls (p. 103) a related development seems to have occurred, the introduction of pañjaras as a means to eliminate superfluous vimāna devakoṣṭhas (pp. 108-09) and a subsequent enlargement of vimānas with more niches (Fig. 25, p. 92 and Fig. 30b, p. 103).

We shall first discuss the pañjara in its various shapes and its importance with regard to dating monuments.

2 Distribution of pañjara vimānas

2.1 Introduction and definition; typology, new hypotheses.

2.1.1 Introduction and definition.

In the last paragraph the pañjara has been mentioned a number of times as an element, because its presence cannot be disconnected from the sum total of devakoṣṭhas in the walls of the vimāna and the ardhamandapa. It is time to explain what is meant by a pañjara, where it occurs on the vimāna wall and how it functions in the structural and religious concept of the vimāna.

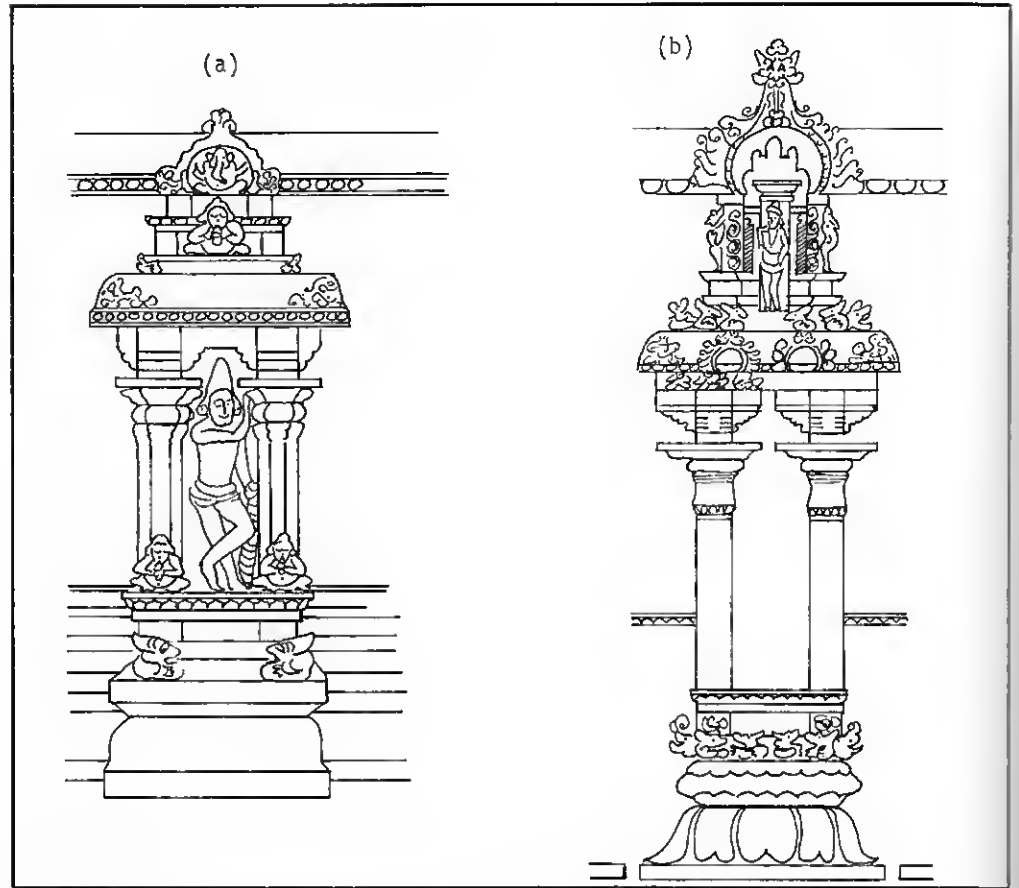


Fig.31. Two examples of a pañjara.
 (a) the Olakaneśvara, Māmallapuram, Pallava, Pallava, ca. A.D. 700.
 (b) the Brahmapurīśvara, Puḷḷamaṅgai, Early Coḷa, ca. A.D. 900.

If the pañjara is a structural element there must be a relationship with other parts of the temple determining this structure. In other words, we expect the pañjara to occur in combination with a particular ground-plan and a specific number of talas. In these combinations the sum total of niches will be shown to be of the utmost importance. Consequently, this paragraph is to a certain extent a continuation of the previous two sections.

A pañjara can be defined as follows:

A pañjara is part of the vimāna wall and consists of two pilasters supporting a kapota on which, in its turn, a replica of a small ekatala is placed. The whole stands either on the paṭṭikā of the vimāna, or on an adhiṣṭhāna of its own. Occasionally it even rests on an upāna of its own.

pañjaras always occur on either side of the central niche. So, in principle, pañjaras can be included irrespective of the shape of the ground-plan. On grounds of logical development and aesthetic consideration the most satisfactory solution for the location of the pañjaras is the space originally meant for lateral niches. The most appropriate form is the II-(3 or 4)-b vimāna. When pañjaras occur on a shrine with a ground-plan of the -2- variant, this might be due to a later phase in the development, when the original function of the pañjara had already been forgotten.

What could have been the function of the pañjara? The oldest pañjara in the Āṇḍu occurs on the walls of the Olakaneśvara at Māmāllapura. (Fig. 31a). The two protruding parts of the wall containing the pañjara have been incorporated so harmoniously in the vimāna wall, that it is difficult to realize that they are, in fact, pañjaras. They resemble sentry-boxes offering shelter to Śaṅkṛā figures. With some effort they can also be discovered on the second floor of the Mukunda Nayanar at Māmāllapuram (Pl. 37) and on the hāra of the Kailasanātha prastara shrines of the Kailasanātha at Kāñcī (Pl. 36). So, their original function was to accommodate images though these are no longer present in the Pallava temples just mentioned, probably because they were carried out in later.

The Early Coḷa architects, on the other hand, seem to have been more interested in the form than in the content of the pañjaras. Presumably they wanted to reduce the number of niches in the walls of a vimāna without affecting the harmony of the construction. The resemblance between the pañjaras of the Olakaneśvara and those of the Brahmapurīśvara at Pullamaṅgai is striking (cf. Fig. 31a and b), although the latter are far more refined. We have to keep in mind that the Early Coḷa artists were confronted with the problem how to fill the wall space without using images. This is not merely an imaginary problem. Undoubtedly, the traditional practice was to plaster and then to paint the shrines. This implies that in that particular period plasterers and painters were readily available, whereas skilled sculptors of images were not. Pañjaras are already present on the śikharas of some of the Sapta Sthānas — viz. on those at Tillaisthānam and Tiruvēdikkudi (Pls. 24-25) — in exactly the same place as on the small Pallava shrines of the Kailasanātha at Kāñcī (Pl. 36) and on the Mukunda Nayanar at Māmāllapuram (Pl. 37). So the Early Coḷa sthāpatīs were familiar with this element, for they used it in a smaller version on the second talas of their earliest buildings. They could, therefore, choose from various alternatives to solve their particular problem. The easiest solution would have been to leave niches empty for the time being. Alternatively, they

could alter the shape of the ground-plan as a result of which the niches became redundant, i.e. change the -(3 or 4)- lay-out into the -2- or even -1- variant; a third solution would have been to leave out the niches altogether and use pañjaras instead, but then, of course, without images.

We believe that the first solution was applied to the Koranganātha at Śrīnivāsanallūr and the Nāgeśvara at Kumbakonam.²⁶⁾ The simple dvitalas of the Sapta Sthānas seem to be examples of the second alternative in which the ground-plan of the vimānas was changed. The Brahmapurīśvara at Puḷḷamaṅgai illustrates the third solution. However, the fact that images were added on the walls of this vimāna, whereas the pañjaras remained empty produces a problem (Pls. 38a-b). The presence of Brahmā and Viṣṇu on either side of the Liṅgodbhava in the western wall of the vimāna can be explained on symbolical grounds. The fact that both deities were not given devakoṣṭhas and had, so to say, no roof over their heads, could be interpreted as a refined way of stressing the inferior position of both gods with regard to that of Śiva.²⁷⁾ In any case, this probably earliest representation of Śiva as Liṅgodbhava, was in this way provided with an obviously, carefully planned entourage.

By this time the growing interest in the Kāverī area in the many other manifestations of Śiva demanded an increase of the number of niches. Meanwhile pañjaras had probably already become such a common element on the vimāna walls that they compelled the designers of new buildings to find space for the devakoṣṭhas somewhere else, i.e. on the walls of the ardhamandapa. This part of a temple can easily be extended without causing structural problems. On the other hand, when the number of niches in the vimāna wall is increased — especially when the pañjaras are also maintained — then the ground-plan of the vimāna has to be enlarged and the roof adjusted with an extra tala in order to keep the whole construction in proportion.

The first temple without pañjaras but with three devakoṣṭhas in each wall of the ardhamandapa is located at Kōṇērīrāṅapuram (K on map 5A). The Cola queen Śembyan Mahādevī founded this ekatala of the I-2-a type in A.D.970 (Fig. 25, p. 92). The Kailasanātha at the village called after this queen and also commissioned by her, has three niches in each vimāna wall in addition to three in each ardhamandapa wall. This dvitala dates from A.D.980 and has the II-4-b combination. The development in which the number of niches suddenly increases, culminates ten years later in the tritala at Tiruvārūr (T on maps 5A and 6), a building which has niches in the walls of its antarāla in addition to three niches in each wall of both the vimāna and the ardhamandapa.

In our opinion the pañjara phase starts ca. A.D.910 or, perhaps ten years

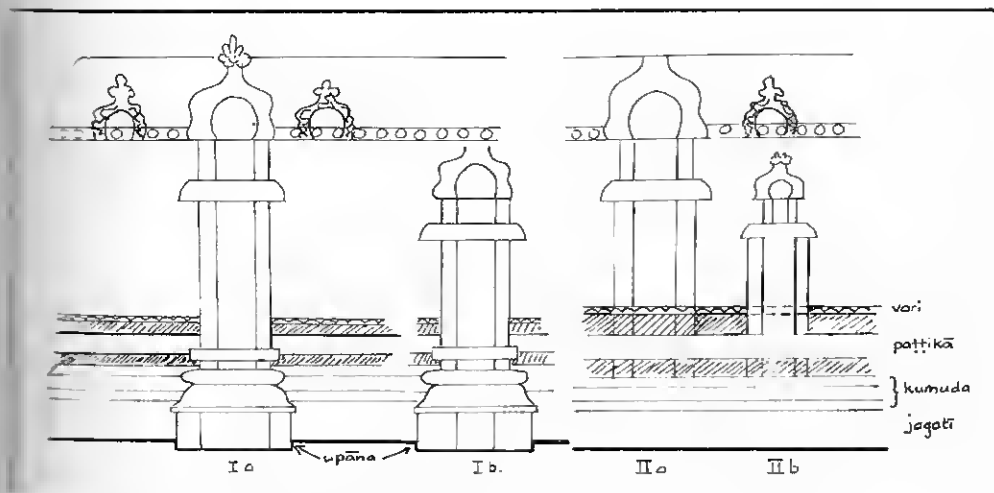


Fig.32. The four types of a pañjara.

er, i.e. with the construction of the Brahmapurīśvara at Puḷḷamaṅgai and around ca. A.D.970, the year in which the shrine without pañjaras at Kōṇē-
rāṭṭapuram was inaugurated, as will be demonstrated in the course of this chapter.

A completely different question is whether the pañjara type, as introduced
the Brahmapurīśvara, was maintained throughout the entire period or whether
changes occurred, e.g. as the result of loss of function. Therefore, a typology
on presupposed phases of development, seems desirable.

1. Typology of pañjara forms.

Two main forms can be distinguished (Fig. 32):

- a) a pañjara with an adhiṣṭhāna of its own and
 - b) a pañjara which stands on the paṭṭikā or the vari of the vimāna wall.
- This is an essential distinction because in the first form the ground-plan of the
śrīra changes, whereas in the second it does not.

A second criterion is the height of the pañjara. It can be crowned by a
karakuṭī, an ekatala or a large, open kūdu. The kūdu may be part of the kapota
of the vimāna and consequently distinguishes itself from the row of kūdus on
the kapota by its size (a). However, the karakuṭī or the kūdu can also remain
under the kapota (b). The first possibility (a) demands a conscientious approach
of the architect, for the lines of the pañjara must flow harmoniously via the
śrīra onto the superstructure, i.e. either the hāra of a dvitala, or the grīvā
of an ekatala. So there are four types of pañjaras: Ia, Ib, IIa or IIb.

The Pallava architects regarded the pañjara as the shelter of a deity. This point of view was accentuated by the fact that each pañjara was given an adhiṣṭhāna of its own. It stood on the same platform as the shrine of which it was a part and was as tall as the vimāna wall. Moreover, its kūdu was the one adorning the kapota of the vimāna. When this proud concept of semi-independence shrivels or hides, as it were, under the protection of the vimāna-kapota, we consider it to be a regression from the original form. That is why we place it within the main group I, variant a before b. In the total design of a koyil types Ia and Ib are both structural elements. Since type II can be applied arbitrarily without affecting the shape of the ground-plan, it seems appropriate to consider this type inferior to type I. In view of its unimportant position on the walls its original function seems to have vanished. Consequently, we shall arrange monuments in which one of the four types occurs in the chronological sequence Ia, Ib and IIa/b. We cannot determine whether type IIa is younger or older than IIb as variants a and b existed already before type I was designed and so, these variants can be contemporary.

3.1.3. Hypotheses.

- In order to date some controversial temples we base ourselves on three assumptions: (1) a development in the shape of the pañjara covering a period of roughly 70 years; (2) an inverse relationship between the appearance of pañjaras and disappearance of niches in the walls of vimānas and (3) also an inverse relationship between the disappearance of pañjaras and the appearance of more niches in the walls of ardhamandapas. In case these hypotheses can be substantiated — for instance by inscriptional evidence, resulting in an evaluation of the views of Balasubrahmanyam and Barrett — then the following deduction can be made:
- temples with three niches in the walls of their vimānas and/or ardhamandapas in combination with one of the four distinguished types of pañjaras are examples of later developments;
 - temples with the complex II-(3 or 4)-b layout — possibly in combination with a large number of niches — and with pañjaras on their walls are also examples of later developments;
 - temples without pañjaras but supposed to have been built in a period which we, from now onwards, shall call the pañjara phase, need a revision with regard to their date.

If our hypotheses are supported by inscriptions on the temple walls and if a so-called "pañjara region" should become visible when pañjara-vimānas are plotted on a map, then a last deduction can be made:

temples without pañjaras but located in the pañjara region, were designed either before or after the pañjara phase.

Distribution of the vimānas belonging to the pañjara phase in the pañjara region.

Vimānas with a pañjara decoration are listed in appendix 8 and indicated on map 6A. It is obvious that the presence of this decoration is concentrated in a narrow corridor along the banks of the Kāverī and the Coleroon. This stretch of land containing the temples 1 to 14 can be called the pañjara region. In appendix 9 we have listed temples without pañjaras which were built — according to others — during our pañjara phase. Their distribution-pattern is such that we were unable to demarcate subregions characterized by the occurrence of one type of pañjara. However, the distribution of the various pañjara types shown on map 6A is such that we may not expect the same development in the other districts as that observed in the delta. As the idea of applying pañjaras instead of niches did not reach the other parts of Tamil Nāḍu — except in four instances — our hypotheses are not valid in those areas and other criteria are needed.

Before starting our discussion of the 31 shrines mentioned in appendices 8 and 9 a few remarks about appendix 8 seem appropriate. The delta shrines are listed according to two criteria: the pañjara sequence Ia-Ib-IIa or IIb (column 3) and the increase in the number of niches in the ardhamandapa walls (column 4). It will be clear that this arrangement of temples on the basis of their pañjaras and niches confirms the discussion in paragraph 2.3.1 of this chapter (p.102), i.e. that the layout of the vimāna (column 5) developed from the more complex (3 or 4)-b type at Puḷḷamaṅgai to the more simple forms I-2-a and II-2-b at Truvādūtūrai and Kuttālam respectively. One may wonder why the shrine at Goburattatti was not included higher up in this list as all its characteristics indicate that it is at least as old as the temple at Puḷḷamaṅgai. The koyil in question was built ca. A.D. 910 with Ia pañjaras decorating merely the walls of the vimāna. Its design, therefore, seems to illustrate that the complex vimāna regained its popularity towards the end of the 10th century. This confirms our second deduction, i.e. that vimānas with complex layouts in combination with the presence of pañjaras must have been erected after A.D. 990. Inscriptions on the two large koyils at Dadapuram and that at Tennēri reinforce this idea: all three were built during the period of Śembyan Mahādevī.

In the next paragraph we shall discuss the monuments listed in appendix 8. The dates as proposed by Balasubrahmanyam and Barrett are given in columns 6 and 7 respectively; references to the publications of both scholars in column 9. The dates in column 8 represent our own preliminary suggestions.

3.3. Description of the vimānas with pañjaras.

1. *The Pipīleśvara at Tiruveṇṇambūr* (Pl. 39).

The Pipīleśvara is an ekatala with a straight ground-plan and — apart from the pañjaras — four pilasters on each wall (I-1-a). Its ardhamandapa is directly attached to the vimāna. In all there are five niches, three in the vimāna and two in the ardhamandapa. The 1a pañjara is completely integrated with the adhiṣṭhāna, the kapota and the walls of the main building and is, therefore, comparable with the original Pallava examples on the Olakaneśvara at Māmāṭṭe-puram (Fig. 31a).

Balasubrahmanyam assumed that the Pipīleśvara was raised between A.D. 875 and 889, while later additions such as the śikhara, were possibly added in A.D. 952. As the inscriptions, unfortunately, only mention the honorific title Rājakesari, without adding the name of a king, he was not quite sure about the date of this shrine, for "There is conflicting and even confusing evidence regarding the origin of the present temple in the early Chola period and it is difficult to unravel the tangled skein of the chronology of the numerous Rājakesari inscriptions of this place."²⁸⁾ However, in spite of this conflicting evidence he started out from the assumption that the temple was built by a certain Tattan Sendi around A.D. 875 and that this lady after some time, i.e. in the 19th year of the reign of Āditya I (A.D. 889), made an endowment to the shrine. Much later, the building was extended considerably by a certain Śembyan Vēdi Velan. This took place in the third year of a Rājakesari. The epigraphist identified this ruler as Gaṇḍarāditya, which explains why Barrett suggested that the koyil was constructed in A.D. 952.

Barrett rejected Balasubrahmanyam's conclusions merely because a figure of Naṭarāja Ānandatāṇḍava is represented in the crescent of the makaratorāṇa above the niche of Dakṣiṇāmūrti. According to him, this iconographic representation of Śiva occurs for the first time in the Śiva koyil at Tiruchchennampūḍi, which he dated — incorrectly — ca. A.D. 920 (p. 105 and appendix 7, no. 9). Moreover, according to his typology the temple has a C-1 ground-plan (Fig. 17, p. 70). Consequently, both arguments would prove that the shrine was built long after the reign of Āditya I. Since this seemed to him the most convincing interpretation of the confusing records, he dated the temple closely after the reign of Gaṇḍarāditya.

We do not agree with Barrett's interpretation. In the first place because decorative details of a temple should never be used to date its structural elements. The Naṭarāja figure may well have been added later.²⁹⁾ Secondly, he did not make clear why the Naṭarāja Ānandatāṇḍava at Tiruchchennampūḍi

ing from ca. A.D. 920, should be considered as the earliest representation of this aspect of Śiva in South India. In the third place, Barrett's typology of the ground-plan shows serious weaknesses, at least when he applied it to construct a chronological sequence.³⁰ So we are left in the dark why the C-1 variant should represent a later stage in the development of the ground-plan than for example D-2, of which the koyil at Puḷḷamaṅgai is an example (A.D. 920-920), or B-5 which can be found in that at Kuttālam (A.D. 991).

On account of the highly controversial date of the Pipīleśvara at Tiruveṇṇūr we inspected the monument several times. It was only at our third visit that we — apart from being allowed to make photographs for the first time — were able to understand its features. The solution to the whole problem can be found in the walls of the ardhamāṇḍapa. In the following we shall try to explain our reconstruction of the sequence of events.

If an architect wants to eliminate niches in a vimāna wall and is searching for alternatives, it seems likely that he opts for an existing solution, which in this case he found on the walls of the Olakaneśvara at Māmallapuram, where there is a striking similarity between this Pallava monument and the koyil at Tiruveṇṇūr. Both have a square ground-plan with only two protruding sections in each wall by way of pañjaras. The similarity is all the more striking as this particular layout was never repeated again. This makes the ground-plan of the shrine at Tiruveṇṇūr a straight-forward and unique copy of a Pallava concept in an area where other Pallava ideas had been tried out as well, i.e. in the (3 or 4)-b vimānas of the Sapta Sthānas. This could mean that the monument at Tiruveṇṇūr represents the first Early Coḷa experiment of a vimāna with pañjaras in each wall instead of lateral niches. The concept of incorporating the pañjara in both the ground-plan and the walls could then have been copied from Tiruveṇṇūr by the sthāpatīs of the Brahmapurīśvara at Puḷḷamaṅgai, which for the first time displays the characteristics of the Early Coḷa style, especially in the shape of its beautiful lotus adhiṣṭhāna (fig. 31b). We are therefore inclined to believe that the construction of the shrine at Tiruveṇṇūr preceded that of the Brahmapurīśvara at Puḷḷamaṅgai. If this is correct, then the record of the 19th regnal year of a Rājakesari on the walls of the Pipīleśvara could be of Āditya I and then belongs to the year A.D. 889. This date fits in with the idea that the Nāgeśvara at Kumbakonam — from A.D. 886 — was the last vimāna with three niches in each wall (p. 105).

A further reason to date the koyil at Tiruveṇṇūr before A.D. 900, is provided by its ardhamāṇḍapa which is short, implying that the space between the pilasters does not allow for a proper niche. Consequently, the present niches

are very narrow and reach only three-quarter up the walls in order to retain correct proportions. This implies that the ardhamandapa from the adhiṣṭhāna upwards is later in date than the base. The explanation is probably an accident as a result of which the roof collapsed resulting in considerable damage. However, in every adhiṣṭhāna the position of the pilasters is fixed by small protruding blocks of the kaṇṭha, which in this case are occasionally decorated. So the spacing of the pilasters on a (future) wall is determined by the base, although the upper part of a building is not necessarily as old as the base. In the case the Pipīleśvara at Tiruverumbūr was rebuilt from its adhiṣṭhāna upwards, it must have taken place in a period when niches in the walls of an ardhamandapa were customary. In the course of this renovation the old-fashioned shape of the original ground-plan then seems to have forced the architects to incorporate pañjaras in the walls of the vimāna. It therefore appears most likely that the extensive additions to the shrine by Śembyan Vēdi Vēlan indeed came about in A.D.952. By then, niches in the walls of an ardhamandapa had become a tradition as will be seen in the next paragraph. Anticipating the full discussion of the development of this feature we can reveal here that the concept of ardhamandapa without niches was already abandoned during the construction of the Sapta Stambas in the delta area and some years later along the borders of the undivided Kāverī. Consequently, the layout of the present building including its base, must have been completed about A.D.889 at the latest.

2. *The Brahmapurīśvara at Puḷḷamaṅgai (Pls. 37a-d).*

The Brahmapurīśvara is the first tritala ever built by Coḷa architects. However its layout is not adapted to its height, for there are — apart from pañjaras — only six pilasters on each wall (III-4-b). The pañjaras are in line with the projecting wall sections on either side of the central niche which juts out even further. Contrary to the pañjaras on the monument at Tiruverumbūr(1), the 1a pañjara on the Brahmapurīśvara shows a far more independent character. In the first place it rests on an upāna of its own; secondly, its base differs from that of the main building; thirdly, the height of the pañjara-base is considerably lower than that of the vimāna — in spite of the fact that it stands on an upāna which the vimāna does not. Finally, the phenomenon of a pañjara is not restricted to the walls of the vimāna, for they occur also on either side of the niches in the walls of the ardhamandapa. So in total, there are ten pañjaras flanking five niches. As our illustrations show, the workmanship on the friezes, figures, panels and makaratorṇas is breath-taking. We are inclined to consider these exquisite and exuberant carvings as the result of a successful training period

started with the decoration of the monuments at Tiruchchennampūṇḍi, Śrī-
Nivāsanallūr and Lalgudi (cf. Pls. 35a-b, 31a-d and 32).

This view is not really contradicted by Balasubrahmanyam and Barrett, who
suggested a date in the very beginning of the 10th century, implying that
it could be earlier, for the record on which they based their opinion does not
concern the construction of the building.

A few short remarks should, however, be made because the shrine shows a
unity which occurs also on the monuments at Tiruppurambyam and Karandai,
the presence of pañjaras on either side of the niches in the walls of the
ardhamandapa. The pañjaras and devakoṣṭhas of the Brahmapurīśvara project and
are in line with each other. All the pañjaras of both the vimāna and the porch
belong to type Ia. This suggests a unity in the concept of the construction,
which is less obvious in the other two monuments. At Tiruppurambyam two types
were applied: type Ia on the vimāna and type Ib on the ardhamandapa; at Karan-
dai pañjaras belong to type Ib. Comparing these three temples, the impres-
sion is created that experiments were tried out not only in the shape of the
pañjaras but also in the layout of the ardhamandapa, for in two of these three
temples the connection between the ardhamandapa and the vimāna was solved
in a different way. Whereas the Brahmapurīśvara at Puḷḷamaṅgai has a hall which
is connected directly with the sanctum, the two other shrines have a kind of corri-
dor between the sanctum and the ardhamandapa. The porch of the Brahmapurīś-
vara resembles, moreover, that at Tiruppalanam. In both monuments the ardhaman-
dapa walls are extended on the front. These extensions on either side of the
entrance to the ardhamandapa are in line with the central projections on the
vimāna. So, proceeding from the eastern wall of the vimāna we have first a re-
cess followed by a projecting part, then a recess and again a projecting part.
In view of the unusual layout of the monuments at Śrīnivāsanallūr and Lal-
gudi (Pls. 107-08), the shrine at Puḷḷamaṅgai seems to be the third experiment
in the succession of how to enlarge the interior of a hall (in order to accomodate
more people and/or images). Although the composition of the walls of an ardha-
mandapa and the connection between it and the vimāna are raised as separate
subjects in the last paragraphs of this chapter, we should like to mention a
few implications at this stage, because it may help to understand why we cannot
assign a late 10th century date for the temples at Tiruppurambyam (no.3) and
Karandai (no.5).

The Śākṣīśvara at Tiruppurambyam (Pl. 40).

Śākṣīśvara is a dvitāla with six pilasters on each wall of the vimāna

and Ia pañjaras which are in line with the projections on the walls (II-3-a). Moreover, the pañjaras are comparable with those at Puḷḷamaṅgai: they rest on an upāna of their own and the size of their adhiṣṭhānas is considerably smaller than that of the main building. On the other hand, we also noticed some differences: the pañjara-base is supported by dwarfs, the upāna rests in its turn on a second upāna decorated with lotus-petals and the vyālis above the kapota-mouldings of the vimāna are absent above the kapota of the pañjara-base. The ardhamandapa is — at least for the observer — separated from the vimāna by means of a small corridor, the so-called false antarāla. The ardhamandapa walls are straight and rather long, for there are — apart from the niche which does not protrude as at Puḷḷamaṅgai — two Ib pañjaras and in total four cut-out niches in each wall. The Ib pañjaras on the walls of this hall differ not only in height from the Ia pañjaras of the vimāna, but also in their crowning elements: a kūdu under the main kapota of the vimāna, a karṇakuṭī under the main kapota of the ardhamandapa.

The decoration of the shrine at Tiruppurambyam is concentrated on the panels and the panels below the vari. Although the kūdus, vyālis and panels are of a good quality, they are not as eye-catching as those at Puḷḷamaṅgai. Since the II-3-b layout of the Sāksīśvara at Tiruppurambyam is almost a trade-mark of the sthāpatis of Āditya I and because the composition and number of pañjaras suggest a close relationship with the Brahmapurīśvara at Puḷḷamaṅgai, we are inclined to consider the former a product of the same workshop. However, in view of its finish and the clearly reduced pañjaras (Ib) on the walls of the ardhamandapa it must be the product of a later generation of artists. The elongated walls of the hall then seem to be their first contribution to a new style as an answer to the probably urgent problem of a shortage of (wall)space. Epigraphical evidence does not contradict this view since the earliest securely dated record is that of the 12th year of Parāntaka I, i.e. A.D. 919. There are some unidentified Rājakesari inscriptions of which Balasubramanyam assumes that they belong to Āditya I, but this seems not to be confirmed by the style of the building as we have just now explained extensively.

We disagree even more with Barrett who believed this koyil to be roughly half a century younger than we do. However, in our opinion the II-3-b combination went out of fashion at the beginning of the 10th century and returned to favour only towards the end of this century (Fig. 25, p. 92). Barrett supposed that the temple was designed between A.D. 975-985, for the shrine in question shares its type of base with those at Gandaradittam (A.D. 983) and Dadapuram. However, sharing features does not automatically imply the same date as Barrett's own list

sufficiently prove.

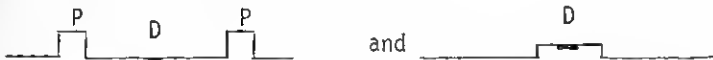
Barrett once more founded his opinion on the presence of a loose Naṭarāja with obvious "third phase" features in the central niche of the ardhamandapa. However, he also stated that this image is contemporary with the other sculptures placed in devakoṣṭhas and recesses, hastily cut out especially then.³¹⁾ Consequently, we must conclude that the Naṭarāja is part of a new set of figures which had to replace and complement a smaller group—i.e. the customary five—of older icons. Barrett's argumentation based on the way in which the Brahmā figure has been incorporated in the Liṅgodbhava sculpture, only applies to this later set of images, but it cannot be used for dating the temple. If this monument was built ca. A.D.975 as he believed, it should have had three niches in the ardhamandapa and/or a smaller vimāna(I-2-a)(Fig.25). Cutting out niches is an activity indicating the necessity to adapt the older building to a new development.

Gomukteśvara at Tiruvādūtūrai (Pl. 41).

Gomukteśvara is an ekatala of the I-2-a type. The layout of its ardhamandapa is a rectangle with two blind niches on either side of the northern niche; the blind niche and one real devakoṣṭha flank the southern, central niche of the vimāna. There is a false antarāla between the vimāna and the hall. The position of the pañjaras on a I-2-a vimāna seems illogical for two reasons: an ekatala is not sufficiently high for a perfect integration of such tall pañjaras in the total design and secondly, the projecting central part (-2-) of the vimāna wall makes the inevitably protruding pañjaras look superfluous. In fact, the pañjaras on this vimāna project even further than the central niche, creating the following indented ground-plan:

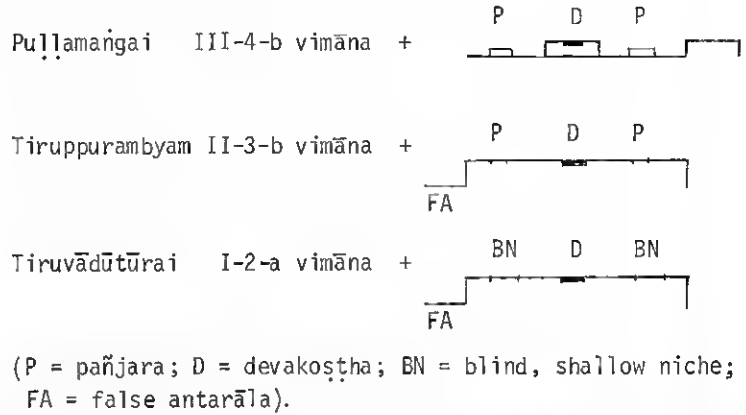


It is a combination of two ground-plan variants, viz. that at Tiruverum and the ordinary I-2-a lay-out:



The composition of the pañjara resembles partly that at Tiruppurambyam, for it is on a double upāna, viz. a lotus-petalled moulding under a raised, straight base; the base is identical with that of the main building, but its size is smaller. On the other hand, the combination of the base mouldings is different from that applied on the monument at Tiruppurambyam: all mouldings including the paṭṭikā are embedded in a padmabandha and the kaṇṭha between the

vari and the paṭṭikā shows a continuous row of lozenges interrupted by pāṇas. If we consider the blind niches of the ardhamāṇḍapa as a rather original and native of the Ia and Ib pañjara applied at Puḷḷamaṅgai and Tiruppurambyam respectively, it is clear that the temple at Tiruvādūtūrai is the third variant in succession. This variation is also visible in the length and layout of the three ardhamāṇḍapas of the monuments in question:



Balasubrahmanyam and Barrett agreed that the temple was inaugurated in the 38th regnal year of Parāntaka I, i.e. in A.D.945. However, they disagreed as to the year in which the first stones were laid. One of the numerous inscriptions found on the walls of this monument reports that Tirukkarrali Pichchan was the mason of the building. This record dates from A.D.932. Barrett rejected the idea that so much time could have passed between the completion of the shrine and its consecration. However, we should not forget that the second half of the reign of Parāntaka I was by no means as peaceful and quiet as the first half. In a period marked by permanent warfare and loss of territory building-activities may well have been suspended temporarily. Under such conditions the means of transport needed for the supply of granite blocks were possibly confiscated and expensive consecration ceremonies would become financially prohibitive. It is also possible that the mason in question completed merely the vimāna in A.D.932 without even touching the ardhamāṇḍapa. The only support for this view is the shape of the vimāna and the ardhamāṇḍapa. This I-2-a vimāna is situated outside the immediate environment of the capital and right in the centre of the delta (maps 3 and 4) where this type was first applied at Melatiruppūndurutti. In the centre of the delta the I-2-a vimāna became popular around A.D.970 (Fig. 25, p.92) but without pañjaras in whatever shape. The fact that the Gomukteśvara at Tiruvādūtūrai shows the I-2-a variant in combination with pañjaras, proves that the build-

represents the transition from one period to another, i.e. from the phase of the
ex II-(3 or 4)-b vimānas with 1a pañjaras to that of the I-2-a shrines
being adorned with pañjaras belonging to the other three distinguished

According to Barrett the Gomukteśvara at Tiruvādūtūrai is the first temple
in which the concept of three niches was tried out on the walls of the ardhaman-
dapa. However, the northern wall of this hall has one devakoṣṭha in the normal
position and not three as Barrett suggested in his ground-plan.³²⁾ In the southern
wall the usual central niche has been reserved for Gaṇeśa. To the right of Gaṇeśa
there is an extra niche for Agastya. This asymmetrical concept obviously did not satisfy
the architect, for he added a blind niche to the left of Gaṇeśa. He apparently
knew that the sculptors were unable to invent a suitable companion for
Gaṇeśa in this second, extra niche.

These blind niches in Barrett's drawing illustrating variant IIe of his
ground-plan are not quite correct, for they clearly do not
represent the vari, implying that in the northern ardhamandapa wall the vari is
located at one place only, i.e. by the Durgā niche, and in the southern
wall in two cases only, i.e. by the niches of Agastya and Gaṇeśa. Thus,
Barrett's third niche is not a niche in the strict sense.

The long period of construction which seemed unacceptable to Barrett,
he explained, by information about the building history of another monu-
ment far off, i.e. the Maṇavaḷeśvara at Tiruvilakkudi (no. 5, appendix 10)
between A.D. 959-70. According to numerous records on its wall this shrine was
built by the local population and some army-units. The financial contri-
butions varied from "one quarter" of the temple to individual building-stones
and wages. Collecting the money probably took quite some time and explains
the difference of almost eleven years between the first and the last endowment
of the temple reported in the records. The monument has cut-out niches in the
walls of its ardhamandapa. This means that the building was completed before
1000, for otherwise the sthāpatis would have designed a hall with three
niches in each wall.³³⁾ This shows that the concept of an ardhamandapa with
three niches — as applied at Tiruvādūtūrai — was not necessarily the fore-run-
ner of the ardhamandapa with three niches. For even if there was no money for
the monument — as apparently was the case with the koyil at Tiruvilakkudi — then
the concept of the blind niches could still have been copied. Consequently,
we believe that these blind niches, which constituted such an important argu-
ment in Barrett's theory about the development of the ardhamandapa, were not
the first announcements of a new style, but merely replacements of the compli-

cated pañjaras and, therefore, the aftermatch of an already full-grown conce

The Agastya niche has no influence whatsoever on the layout of the an mandapa, for its floor lies above the paṭṭikā. The controversy about the start of the construction of the Gomukteśvara at Tiruvādūtūrai results among other from the fact that a record from A.D. 945 mentions that the building was completed from the kudap-padaḥ upwards. This is an architectural term of which nobody knows to exactly which part of the temple it applies. Barrett interpreted it as the kumuda, the element of the adhiṣṭhāna under the paṭṭikā. Balasubrahmanyam believed it to be a layer somewhere higher up on the temple walls or even a part of the superstructure. However, in both cases the layout of the shrine remains unaffected. A discussion about the date at which the kōyil was completed from whatever part upwards is therefore irrelevant. On the other hand, it is important to know when the idea arose to introduce structural changes in old designs. It seems to us that this must have started after the building at Tiruppurambyam was raised (A.D.910-925). Since the Ia pañjara on the II-3-b vimāna at that place does not show this loss of function, the Gomukteśvara at Tiruvādūtūrai was almost certainly designed considerably later but before A.D.932, the year of the record in which the mason is mentioned. This implies that the inscription of the third regnal year of a certain Parakesari either is an old Parāntaka I record, from A.D.910, or should be ascribed to another Parakesari, i.e. most probably Ariñjaya, one of his sons. Since the inscription mentions the same person as a record dated twenty-two years later, i.e. A.D.932, but then with the important addition that he is the builder of the shrine, Balasubrahmanyam believed that the monument in question dated from A.D.910. However, this seems a wrong conclusion. In the first place the person in question is not described as the builder of the vimāna in the controversial Parakesari record, but in the inscription of A.D.932. Secondly, that particular record could equally be assigned to the third regnal year of Ariñjaya, i.e. A.D. 959. In this case the lapse of time is twenty-seven years as against twenty-two according to the other interpretation. If one allows twenty-two years as an acceptable period for the survival of the mason, then five years do not make a great difference.

Since the simple layout of this shrine is not compatible with the early date of A.D.910, whereas the year A.D.932 is consistent with the supposed deterioration of the architectural development during the rule of Parāntaka we propose A.D.932 as the year in which the construction of the temple was started, or any date after A.D. 925, the year in which the temple of Tiruppurambyam was definitely completed.

Viṣṭiśvara at Karandai (Pls. 42a-b).

Viṣṭiśvara is an ekatala of type I-2-a. The ground-plan of both its vimāna and its ardhamandapa is identical with that of the vimāna at Tiruvādūtūrai, showing that the protruding pañjaras are flanking the protruding central niche on the walls of both the vimāna and the ardhamandapa. Each pañjara stands on an area of its own, its base is identical with that of the main building, but is much smaller. The shrine lacks the refinement of the other monuments discovered so far. On the other hand, we are confronted with a rather unexpected feature occurring under the palagai: the so-called idaḷ or munai, i.e. the protruding ends of the reverse kamala or lotus (appendix 5, aspect 16, no.4). Due to the scarcity of inscriptions Balasubrahmanyam considered the monument as a product of the days of Uttama Coḷa. Yet, at the same time, he felt that it could also have been built during the reign of Parāntaka I. There is an abundance of images in small, ungainly recesses both in the walls of the vimāna and in those of the hall. It is evident that the walls had to be spoilt in order to accommodate this huge number of sculptures. Only with Śembyan Mahā-Śiva became customary to add as many figures as possible. We, therefore, agree with Balasubrahmanyam that these recesses were cut out in despair, because Kōyil is too small for such a large number of images. When Barrett, nevertheless, classified this shrine in his third phase on account of its sculptures, we wonder with Balasubrahmanyam how a building can be contemporary with sculptures standing in niches which were obviously cut out right across the inscriptions. On these grounds alone we have to reject Barrett's dating.

The temple must have been built before A.D. 970, the year in which the first ardhamandapa with three niches was constructed (Fig. 25, p. 92). Our argument is that the presence of 12 pañjaras on the walls of this ardhamandapa indicates that it was designed soon after the Gomukteśvara at Tiruvādūtūrai still existed. We believe that this last shrine was erected not long after the temple at Tiruppurambyam because it already has the extended ardhamandapa walls, although the complicated pañjaras were given up. Furthermore, the new concept of niches — consisting of two half-niche pilasters, a lintel and a makara-śira, did not find favour in the eyes of the sthāpatīs at Karandai so, here we see once more pañjaras on the ardhamandapa walls, but this time under the palagai — perhaps a reminiscence of the blind niches which do not reach to the vimāna either.

Because we shall bring forward more arguments to date the shrine at Kōyil-Śembyanpēṭṭai (no. 7) decorated with 12 pañjaras around A.D. 940, the 12 temple at Karandai can be dated between A.D. 932 (Tiruvādūtūrai) and 940 (pp. 129-30).

6. *The Jñānaparameśvara at Tirumayānam* (Pls. 43a-c).

The Jñānaparameśvara has a 1-2-a vimāna. Its ardhamandapa is attached directly to the vimāna. There are only five niches in the entire building. The pañjara present on the walls of the vimāna only — represent type IIb, implying that they are not incorporated in the ground-plan.

Barrett pointed out that this vimāna is virtually identical with that at Karandai (no.5). Consequently, he dated the shrine at Tirumayānam ca A.D. 985. It is, however, obvious that the resemblance cannot be that strong, for the pañjara of the two monuments in question belong to different categories and the terrain on which they occur, therefore, to different periods. Barrett's other arguments are not convincing either. He considered the base of the koyil at Tirumayānam transitional because the vyāli frieze — normally present above the rounded kumuda and padmabandha — is replaced by a straight kaṇṭha and paṭṭikā (his type B2), whereas the base at Karandai is his type B2a (Fig. 14, p. 66). We believe, however, that the shrine at Tirumayānam was rebuilt from the rounded kumuda upwards as we shall demonstrate shortly, which implies that this base is not a representative of a transitional phase but an accident.

Balasubrahmanyam, on the other hand, believed this monument to be one of the earliest, original Āditya I temples on account of the pullis in an inscription issued in the 2nd year of a Rājakesari.³⁴⁾ In view of the "modern" appearance of the koyil, we must take these pullis as an exercise in calligraphy. Nothing in the building justifies a year of construction as early as A.D. 872. Confining ourselves to the ground-plan variant and the type of pañjara, the 1-2-a combination is common in the eastern part of the delta (cf. map 5 and Fig. 30a, p. 103), whereas the short pañjara without a proper base is a completely new type which has lost its function. The sthāpati must have felt insecure when he wanted to incorporate this element into the building. He obviously did not understand its actual purpose, which is reflected in the unique way in which he experimented. Pls. 43a-c show that the pañjara retains some kind of individuality: its adhiṣṭhāna mouldings do not coincide completely with that of the vimāna. The vari runs lower than the main vari, while the paṭṭikā and the kaṇṭha protrude slightly. These details support our opinion that at least the upper part of the shrine must have been built after the Vasītteśvara at Karandai. Pl. 43c reveals a further peculiarity: the slightly protruding kaṇṭha of the pañjara is placed on the rounded kumuda which does not show a projection in that place. Moreover, the praṇāla is located in the jagatī, indicating that the floor level of the temple coincides with the top of the jagatī. So, this koyil was probably renovated from the jagatī upwards. The layout could then date from the days

Āṭṭya I, presumably from the last decade of the 9th century, for the I-2-a
 was tried out for the first time on the shrine at Melatiruppūndurutti
 (A.D.885) and afterwards at Lalgudi (A.D.898). The upper part of the building
 only have been added later, but before the period in which three niches in
 walls of the ardhamandapa became customary, i.e. before A.D.970, for it
 is rather easy to extend the floor of an ardhamandapa. If the renovation of this
 had been entrusted to the architects of Śenbyan Mahādevī, then they would
 mainly have designed a layout with three niches in the ardhamandapa. But
 even if this was not the case, i.e. that the collapsed ardhamandapa was not re-
 constructed by these sthāpatis because they wanted to retain the original lay-
 out — possibly in order to avoid cutting extra blocks for the ogeed moulding re-
 quired for both the false antarāla and the further enlargement of the floor — then
 the renovation must still have taken place before A.D.970. For we believe that the IIb
 pañjara displayed on this monument is probably an accidental shape, in the
 sense that the sthāpatis of this koyil with its undamaged base were forced to
 use the Ib type of pañjara applied at Karandai on mouldings which did not
 have the protruding parts normally under the upper parts of a pañjara. Now,
 the "accidental" pañjara at Tirumayānam, which can be understood only if our
 identification is accepted, has been copied on the temple at Kōyildēvarāyanpēṭ-
 tait from A.D.940 as we shall point out shortly. Consequently, we are
 convinced that the shrine at Tirumayānam in its present shape was completed
 between A.D.932 - 940. As we have just said that the two koyils at Karandai
 and Tirumayānam were erected in this very sequence, we suggest a year of
 construction between A.D.932-935 for the shrine at Karandai, while that at
 Tirumayānam was probably completed between A.D. 935-940.

The Matsyapūrīśvara at Kōyildēvarāyanpēṭṭai (Pl. 44).

Matsyapūrīśvara is at present a II-2-a vimāna with an ardhamandapa attached
 directly to it and with a niche in each wall. This plain building gives the im-
 pression of having been completed recently. It shows no sculptural decoration
 whatsoever but is engraved with a large number of inscriptions. The shrine
 is like an imitation of some older koyil, the more so because it represents
 a pure II-2-a form, which is otherwise unknown in the delta. The original
 building could have been an ekatala on the same ground-plan, a common type in
 the area in the middle of the 10th century.

The roof was probably rebuilt several times, i.e. at first replaced by a
 brick superstructure. Now, renovators often added an extra brick tala to an
 originally granite ekatala because they preferred a high building. The hybrid

form of the Matsyapūrīśvara resulting from a supposed renovation and consisting of a first storey of granite and a superstructure of brick was improved during the most recent restoration when the brick roof was replaced by a stone pavilion thus creating the anomaly of a II-2-a vimāna.

We believe that the first tala of the present building is a carefully executed modern copy of the original which was engraved with inscriptions dating from A.D. 945 onwards. The shape of its pañjaras has deteriorated even further in comparison with that at Tirumayānam, for the vari runs at the same height as the paṭṭikā of the main building, whereas its own paṭṭikā has disappeared.

The inscription of the 38th regnal year of Parāntaka I — mentioning a gift of the 17th year of a Rājakesarivarman (A.D. 887 according to Balasubrahmanyam) indicates that the renovated shrine must have been in existence in A.D. 945. It is located on the site of an older Śiva kōyil. Unfortunately, there is a record dated from the 9th regnal year of Uttama Coḷa, i.e. A.D. 978 which reports a gift for the sacred bath of the deity — a ceremony following, according to Barrett, the completion of a temple. This could be taken as an argument against our point of view. In our opinion a different interpretation of the record is possible. The sacred bath of the deity could well mean what it indicates in the first place, i.e. the sacred bath of the image of the deity to which the shrine was dedicated. This ceremony occurs occasionally, and not necessarily only on the day of the abhiṣeka, i.e. the inauguration ceremony of a new temple. However, Barrett probably considered this "sacred bath" as the abhiṣeka because, otherwise, he could not explain the third phase characteristics of the images.

8. *The Viṣamaṅgaleśvara at Tudaiyūr* (Pl. 45a-b).

The Viṣamaṅgaleśvara is an ekatala of the type I-2-a with an ardhamandapa attached directly to it and with only one niche in each wall. Its pañjaras belong to type IIa and are ugly.

There is a difference of nearly a century between the dates suggested for this monument. Balasubrahmanyam merely took the presence of a loose Viṇādhara Dakṣiṇāmūrti image as a criterion for dating and believed that this representation of Śiva was known in the 9th century. There is no documentation to confirm this view. Barrett was merely mesmerized by a miniscule panel in the wall kanṭha representing Naṭarāja, which according to him occurs for the first time at Tiruchchennampūṇḍi in A.D. 920 (p. 105). On grounds of the unreliable sculptural evidence Balasubrahmanyam ascribed a Rājakesari record with a 5th

year to Āditya I, while Barrett interpreted the same as a Gaṇḍarāditya inscription. Although we do not accept Barrett's argumentation, we cannot agree on an early date either. For, if the temple would have been built during the reign of Āditya I, its top-heavy IIa pañjara must be compared with the elegant pañjaras at Puḷḷamaṅgai and Tiruveṟumbūr (cf. Pls. 38b and 39). This Ia type exists as a standard feature on temple walls until at least A.D. 932 (Tiruvāṇṭai). The imperfect IIa variant at Tudaiyūr is then an inexplicable phenomenon. However, if we assume that the construction started around A.D. 950 this anachronism can be eliminated, for this is the period in which the architects began to reshape the Ia and Ib variants as the examples at Tirumayānam and Tēvarāyanpēṭṭai may sufficiently prove. However, the temple at Tudaiyūr displays two more unexpected features: the polygonal kāl and the munai under the salagai. These details, to be discussed in the next chapter, went out of fashion during the first years of the 10th century. Therefore, this shrine fits neither the end of the 9th century nor does it seem to belong to the days of Paṇḍya I. Consequently, we have to postpone a decision about the date of this shrine.

The Uktavedeśvara at Kuttālam.

The Uktavedeśvara is a II-2-b vimāna. Its ardhamandapa has three niches in each wall and is connected directly with it by means of a false antarāla. Its Ib pañjaras appear only on the vimāna walls which makes it distinctively different from, for instance, the monuments at Tiruppurambyam and Karandai.

The shrine was built before A.D. 992. This is about half a century after the last pañjaras were designed in the delta and some twenty years after the construction of the first ardhamandapa with three niches in the walls attached to a vimāna without pañjaras (at Kuhūr, A.D. 970). Consequently, the shrine at Kuttālam displays a return to archaic forms. In the last two paragraphs of this chapter we shall show that after A.D. 990 archaisms became popular.

The Ten Kailāsa at Tiruvaṛiyāṟṇ (Pl. 47).

The Ten Kailāsa is situated south of the Pañcanādiśvara at Tiruvaṛiyāṟṇ in the large temple compound. It is a II-4-b vimāna with an ardhamandapa attached directly to it. This hall has three niches in each wall. The Ib pañjaras are only present on the vimāna walls as rather unobtrusive decorations within the recesses.

It is assumed that this temple was built during the reign of Rājendra I, after A.D. 1014, because this king donated some old, but beautiful Cāḷukya

pillars to the shrine. However, we hold the view that this monument belongs to the period of Rājarāja I which we hope to prove in the paragraph concerning the ardhamandapa variants. In previous publications the style of the temple never used as a criterion for dating and no records of either Rājarāja I or Rājendra I have been discovered on the building. So, it seems rather arbitrary to attribute this monument to the period of Rājendra I merely because he robbed a number of pillars from the Cālukya area and donated them to this shrine. Neither the pañjaras, nor the shape of its ardhamandapa nor — as we shall see — the profile of its podigai support such an attribution.

11. *The Śiva Koyil at Manampādi* (Pls. 46a-b).

As far as we know this temple is not mentioned in any publication. It lies completely hidden in a palmgrove along the road between the Lower Anicut and Kurubakonam. The vimāna has a II-4-b ground-plan, there are three niches in each wall of the ardhamandapa and I Ib pañjaras on either side of the niches in the walls of the vimāna. This will prove to be the earliest case of a pure I Ib type. In all other examples experiments were made to reduce the tall Ia variant into the smaller I Ib pañjara. The pañjaras on the koyil at Manampādi no longer show this searching for new forms. This indicates that it was designed after that disorderly period. In our opinion this shrine is typical for the last years of the 10th century in view of its combination of a complex vimāna, pañjaras and six niches in the two walls of the ardhamandapa.

For the moment we can say no more than that it resembles in many respects the Ten Kailāsa at Tiruvaīyārū, except that the pañjara of the latter stands on a paṭṭikā of the vimāna, while that at Manampādi protrudes slightly from the paṭṭikā upto and including the vari, giving this element a measure of independence.

12. *The Vatamūleśvara at Kīlappaḷuvūr* (Pl. 48).

The Vatamūleśvara is a I-2-a vimāna with an ardhamandapa attached directly to it and with real niches only in the vimāna walls. There are, however, cut-and-dried devakoṣṭhas in each wall of the ardhamandapa.

In contrast to the situation just described, in which lack of inscriptions created problems, the Vatamūleśvara at Kīlappaḷuvūr is controversial due to no records, since they can be interpreted in two different ways. Before reviewing their contents some remarks should be made about the stylistic features of the building. Its pañjaras are very strange indeed. The two pilasters break through the paṭṭikā of the vimāna and stand directly on the kumuda. They do not protrude

is normal in other shrines, but are in line with the paṭṭikā. Furthermore, the reversed lotus on the kapota of the pañjara can be noticed. It looks like a reduction of the example on the Matsyapūrīśvara at Kōyildēvarāyanpēṭṭai (p. 44), where the lotus was still a śikhara-like ornament on the tiny temple on the kapota of the pañjara. On the monument at Kṭlappaḷuvūr the residue of such a shrine has completely vanished for the lotus lies immediately on the wall. As a result of this the character of the pañjara was lost and the suggestion of a devakoṣṭha is evident except for the fact that the pilasters pass through the paṭṭikā. Since the floor of a niche always has the same level as that of the vimāna, the interrupted paṭṭikā indicates that the architects no longer understood the significance of the pañjara.

Strangely enough, the controversy about this temple results from inscriptions in which its founder is mentioned. This information, interesting in itself, creates nothing but trouble, as Balasubrahmanyam used it for a long argument against Barrett, in the course of which he rejected in passing the whole stylistic development suggested by Barrett. In addition Balasubrahmanyam tried to prove that the inscriptions of Parāntaka I are genuine and that the building therefore already existed in A.D. 919, or at the very latest in A.D. 922. This date is derived from an inscription engraved in the 15th regnal year of a Cholasari. Barrett interpreted it as a record of Uttama Coḷa and therefore concluded that the koyil was completed in A.D. 984 by a chief called Paluvettaraiyan Maravan Kādam.

Balasubrahmanyam suggested a compromise, viz. that Paluvettaraiyan Maravan Kādam did not so much complete the vimāna, as the whole temple complex including all surrounding buildings, walls and gopuras around A.D. 984. Unfortunately, this suggestion does not solve the problem, viz. the exact date of the vimāna with its mysterious style. In this connection the possible date of the additional buildings in the temple compound is completely irrelevant.

It is clear that we have to formulate our views on the basis of stylistic characteristics only. Now, the shrine lies outside the main stream of the delta, both in the literal and the figurative sense. For, its ardhamandapa has no side niches. This already indicates that the architect did not follow the delta idiom, in which one niche was customary around A.D. 920 and around A.D. 980. The same applies to the shape of its pañjaras.

The inscription tells us that the construction was a "local affair". Let us assume that the architect was slightly aware of recent developments. Had the temple been completed ca. A.D. 920, he would have copied the pañjara of the

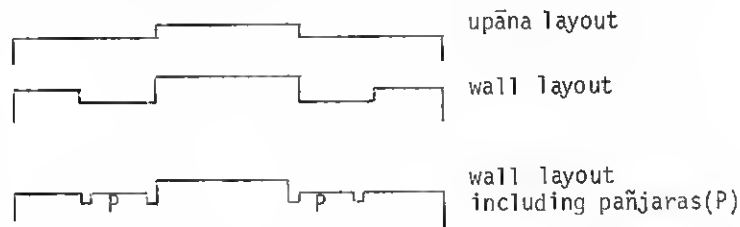
Brahmapurīśvara at Puḷḷamaṅgai, not far off. In that case his interpretation of this extraordinarily harmonious and elegant pañjara can be compared with the imitation of a professional calligrapher by an illiterate. On the other hand, around A.D.984 the architect of the shrine at Kṭṭappaḷuvūr could have copied: the pañjaras at Puḷḷamaṅgai, Tirumayānam, Tiruvādūtūrai or Kōyildēvarāyanpēṭṭai. From the above discussion it appears that he found his inspiration at the last village. This reasoning seems to follow the course of least resistance, but it does fit into the notion that the final phase which the pañjara concept had meanwhile reached in the Kāverī delta, coincided with the adoption of this ornament by the people in the backwaters. The pañjara at Kṭṭappaḷuvūr is the product of an obviously uninspired person who did not know how to handle an old concept, whereas the last representative of the I Ib pañjara in the delta — at Kōyildēvarāyanpēṭṭai — still shows some of its original features.

13. *The Amaleśvara at Goburapatti* and 14. *the Sāmavedeśvara at Tirumaṅgalam* (Pls. 42-43). These two shrines are discussed together because, in our opinion, they date from more or less the same time and are located in the same restricted area. They lie north of the Coleroon, like the monument at Tudaiyūr (no. 8), but in contrast to the latter they show the II-4-b and II-3-b layout respectively. As we have seen in Fig. 25 (p. 92) these forms became popular again during the reign of Śembyan Mahādevī. However, neither of these buildings has the two extra niches in the ardhamandapa walls and the false antarāla which are characteristics of this period. Of course, this could be taken as a regional variant of the area north of the Coleroon. On the walls of these shrines donations of Śembyan Mahādevī, Rājarāja I and later kings are commemorated. The years mentioned in the records were without further comment used by Balasubrahmanyam in order to date the Amaleśvara at Goburapatti ca. A.D.981 and the Sāmavedeśvara at Tirumaṅgalam ca. A.D.990.³⁵⁾ Both temples obviously enjoyed the warm attention — always expressed financially — of the Coḷa dynasty. If we assume, therefore, that they were built between A.D.970 and 990 — a possibility which certainly applies to the Amaleśvara, provided a record of A.D.980 is genuine — then we must all the same point out that far outside the delta — at Vriddhāchalam in South Arcot — a temple was commissioned by Śembyan Mahādevī, which shows all the characteristics of her workshop, such as a shrine with a false antarāla, three niches in the ardhamandapa walls and no pañjaras.

We cannot believe that temples constructed by her workshop near the delta would deviate from the design typical of her workshop, the more so, because after A.D.990 a period of diversity started. This diversity consisted of certain

es in the design which had been applied in the first group of Śembyan Mahā-
monuments such as the absence of the false antarāla (as on the Acaleśvara
śrīrū of ca. A.D.991), the return to one niche in the ardhamandapa (cf.
śrīrines at Dadapuram dating from just before A.D.1006), the presence of a pañ-
on the walls of either the vimāna or the ardhamandapa (as on the temple at
of A.D.992) and the introduction of a high upāna. In view of all this
ieve that the two monuments at Goburapatti and Tirumaṅgalam were construc-
after A.D.990 or even around A.D.1000. The latter date occurs on both śrī-
and mentions valuable donations for sacred baths, made by the royal house-
Between this record and the oldest of the preceding inscriptions lies a
of ten to fifteen years. It is quite possible that in the intervening
—after a visit by the king or queen during which the dilapidated condition
the temples may have been noticed— a decision was taken to pull them down
replace them by two completely new buildings.

The I Ib pañjara at Tirumaṅgalam (Pl. 50) is comparable with those at Manam-
and Tiruvaiaṅṅū (Pls. 46a-b and 47). The Ia pañjara at Goburapatti (Pl. 49)
clever imitation of a centuries-old form. We should like to draw atten-
to the inconspicuous way in which the adhiṣṭhāna of the pañjara is incor-
ated into that of the vimāna. In fact, we are inclined to classify this pañjara
extremely succesful application of the I Ia variant, for the impression is
ated that its own adhiṣṭhāna is fully integrated in the main base. This
effect results from the layout of the upāna which belongs to the -2-
ety. The walls of the vimāna are divided in a way that resembles the -4-
with the pañjaras as an extra addition:



First sight the main adhiṣṭhāna has a -2- ground-plan, but on closer inspec-
it appears to consist of five projections divided by very narrow recesses
could almost be called slits.

In view of the above considerations, both temples can be dated between A.D.
and 1000 but which of the two is older cannot be decided on the basis of
applied criteria.

15. *The Tirutiṇḍīśvara at Tiṇḍivanam* (Pls. 51 and 69a-b).

This temple has exactly the same characteristics as the Sāmavedeśvara at Tiṇḍi maṅgalam (Pl. 50), i.e. a IIB pañjara, no false antarāla, one niche in the ardhamaṇḍapa and a II-3-b lay-out. This would imply that the monument at Tiṇḍivanam in the present South Arcot District, was built only after A.D. 990. As it lies in an area where the Rāṣṭrakūṭas repeatedly attacked the Coḷas, a regional variant is likely. This assumption is supported by Balasubrahmanyan's view that this temple in any case existed already in A.D. 960, i.e. 30 years earlier. For he interpreted the year 5 of a Rājakesarivarman to be the 5th regnal year of Sundara Coḷa, alias Parāntaka II (A.D. 956-73).

In itself a IIB pañjara—this time on the vari—which represents the first phase of a development starting at Tirumayānam (pp. 128-29), could well occur on a temple dated in A.D. 960. This implies that all temples with a IIB pañjara were constructed in the delta before this time, which does not contradict the chronological sequence suggested by us so far (appendix 8). The problem with this temple is, that its ground-plan is either too old or too young. As far as we know there is no shrine anywhere in the Coḷa realm which dates from the middle of the 10th century and represents the II-3-b type, at least as we estimated the age of the three vimānas north of the western Kāverī, just discussed, correctly. However, we believe that the koyil at Tiṇḍivanam was probably renovated from the vari upwards. For there is a remarkable difference in the finish of the adhiṣṭhāna and that of the rest of the building, as can be seen clearly in Pl. 51. What is more, the style of the adhiṣṭhāna displays unmistakable Cāḷukya characteristics (cf. Pls. 5-9). We would not be surprised if further epigraphical investigations would prove that the lower part of the temple was built by Cāḷukya artists. After some time the shrine was then finished by sthāpatis from the neighbourhood of Tiṇḍivanam. We shall return to this monument in our discussion of the vari variants.

16a-b. *The Śiva and Viṣṇu temples at Dadapuram* (Pls. 52a-b).

These monuments were built at about the same time. The Śiva koyil is a II-4-t vimāna with a false antarāla and one niche in each wall of its ardhamaṇḍapa. It stands on a raised upāna with a -2- ground-plan.

The Viṣṇu shrine is a tritala, but in all other respects it is identical with the Śiva koyil in the same village. Although the sthāpatis of both temples selected the most "royal" layouts known in those days, the decoration is not as splendid as could have been expected of shrines commissioned by members of the ruling family (cf. for instance the monuments at Vriḍdhāchalam, Kuttālam, Gobbi

and Tirumaigalam (Figs. 41b-c, p.211). We know that both buildings were erected in A.D. 1006. The use of the Ib pañjara conforms with the revival of motifs observed in the Uktavedeśvara at Kuttālam (p.131). The design of the shrines confirms our previously expressed supposition that both the old variant and the II-4-b vimāna returned to favour. In this case we would like to use the expression "regional variant", although Dadapuram is not far from Tiṇḍivanam. The record so emphatically tells us that both temples were built under the patronage of the eldest sister of Rājarāja I, that we must consider the eccentric location as a fortuitous circumstance.

The Kaṇḍalīśvara at Tennēri. 37)

It is a II-4-b vimāna with pañjaras already strongly resembling a blind niche, the kapota has disappeared and the top is no longer a kūdu but a small makara-mukha. All this remains under the main kapota and stands on the vari of the vimāna. So, although this temple can strictly speaking no longer be counted among the Iib pañjara shrines, we include it in our discussion to show how easily a pañjara can change into a niche, a development which we have observed in the reverse order about A.D.900 (p.113). The Kaṇḍalīśvara was formerly called Uttamasolīśvara. Balasubrahmanyam assumed that it was erected in memory of Uttama Coḷa around A.D.995, since this is mentioned in an extensive record of that year. The style of the monument is in concordance with this date. The vimāna has three niches in the walls of its ardhamandapa, but the false antechamber is already missing. Since the pañjara-like niches become again real niches in the case of the vimāna of the Acaleśvara at Tiruvārūr (A.O.991), which likewise shares its main features such as layout and number of niches with the Kaṇḍalīśvara, we consider them both as products of the same workshop, although their locations are far apart. Moreover, from the inscriptions it appears that the Kaṇḍalīśvara received the attention of many Coḷa princes, which would explain its resemblance to the monuments built in the delta at the turn of the century.

24. Description of other vimānas in the pañjara region: consequences of the proposed chronology for their dating.

Our suggestion is correct, i.e. that between A.D.910 and 970 exclusively vimānas with pañjaras were built in the delta, then a number of shrines become controversial, because they were designed during that period according to Balasubrahmanyam and/or Barrett, but do not have that type of wall decoration. The names of the villages in which these monuments are situated are listed in ap-

pendix 9 which is a continuation of appendix 8. Their locations and numbers correspond with those on map 6A. We shall now discuss them.

18. *The Madhuvaneśvara at Tirukkaḷuvūr* (Pl. 53).

According to Balasubrahmanyam this temple was built during the reign of Āditya I, although its earliest record dates from A.D. 918. The I-2-a layout of the vimāna relates it to that at Melatiruppūndurutti — one of the Sapta Sthānas. Both shrines have an octagonal gr̥tvā-platform, but, whereas the śikhara at Tirukkaḷuvūr is octagonal, that at Melatiruppūndurutti is circular. The way in which the ardhamandapa with one niche in each wall is connected with the garbhagrha is also shared by both temples. If the epigraphist and Balasubrahmanyam were right in assuming that the Rājakesari inscription is a record of Aditya I, i.e. A.D. 888 and, moreover, genuine, then not only the temple at Tirukkaḷuvūr was designed before A.D. 888, but also its proto-type, the I-2-a shrine at Melatiruppūndurutti. This does not contradict our suggestion, formulated earlier (p. 104) that the II-2-b vimānas of the Sapta Sthāna group were constructed ca. A.D. 888 while the only I-2-a shrine at Melatiruppūndurutti might be slightly later.

The Madhuvaneśvara at Tirukkaḷuvūr displays a striking frieze over the kapota of its ardhamandapa. It represents an exuberant party of racing horses, elephants and their riders, obviously copied from a Pallava monument, viz. the Sundara Varadarāja Perumāḷ at Uttaramallūr where it occupies the same lofty place.³⁸ A similar frieze is found on the Saptarṣīśvara at Laḷgudi (Pl. 32), a monument carrying inscriptions on its walls dated in the 27th regnal year of Āditya I, i.e. A.D. 898. Here, the frieze is in the right place, viz. over the kumuda of the adhiṣṭhāna. So, the buildings at Tirukkaḷuvūr and Laḷgudi are linked directly by their unique friezes. The shrine at Laḷgudi can be considered as a continuation of that at Tiruvaiaṅṅū, for, although the latter is a dvitala with a II-2-b layout (no. 5, appendix 7), they both rest on a lotus base.

As already mentioned, the temple at Tirukkaḷuvūr is a copy of the I-2-a vimāna at Melatiruppūndurutti both standing on a straight base. They can be interpreted as products of the first wave of building activities in and immediately outside the small Sapta Sthāna area, during which further experiments with basic forms were tried out. Since the I-2-a koyil at Laḷgudi dates from before A.D. 898, the year A.D. 888 is acceptable for the monument at Tirukkaḷuvūr, the more so, since the architect of the former incorporated the new design of the frieze harmoniously into the total concept of the shrine, whereas the builders of the temple at Tirukkaḷuvūr used it only on the roof of the por-

The *Vedapurīśvara* at *Tirukkaliṭṭattai* (Pl. 54).

Vedapurīśvara is an ekatala of type I-1-a with a small ardhamandapa connected directly to it. In all there are only five niches in the entire building.

According to Balasubrahmanyam this humble shrine was already known in its present form during the days of Parāntaka I, since its oldest inscription mentions the 22nd regnal year of a Parakesarivarman which can only refer to this era. It must therefore have existed already before A.D.929. Most of the other records are damaged.

This I-1-a vimana lies not far from Tiruvaduturai (no. 4). If the inscription of A.D.929 belongs to the present building this would imply that it is contemporary with the Gomukteśvara at Tiruvādūtūrai which has a vimāna with pañjaras. This is hard to imagine. Considering the absence of decoration and the aged condition of the records we are inclined to believe that the shrine at *Tirukkaliṭṭattai* was renovated at a time when financial means for work on religious buildings were scarce, i.e. during or immediately after the war with Paṣṭrakūṭas, so after A.D.950. One point would seem to contradict this view: the absence of a false antarāla which is the most characteristic aspect of temples built in the 10th century (appendix 10). However, it can be taken for granted that temples financed with small means during that same period, did not need large ardhamandapas and consequently no false antarāla, because the villagers could not afford the images for the niches.

The *Gaṅgājaṭādhara* at *Gōvīṇḍaputtūr* (Pls. 55a-b).

In contrast to the preceding I-1-a temple, this I-2-a building has a connecting part between the ardhamandapa and the vimāna, at least it seems so from the outside. According to Balasubrahmanyam the construction of this temple started ca. A.D.929 and finished only some 50 years later. Barrett refused to accept such a long, drawn-out period of construction and assumed that the monument was built ca. A.D. 982. The record dated in this year tells us that a non-Brahmin person Ambavalan Paluvur Nakkan from Kolar and a nobleman of the king's council, donated the first of his many gifts to this temple already in A.D. 981. Although Balasubrahmanyam was right when believing that the layout of this temple represents the style of Parāntaka I and, consequently, must be a building raised during his reign, we would rather agree with Barrett's opinion, when we realize that there is only one niche in every wall of the ardhamandapa instead of three, a feature which became customary after A.D.970 (Fig. 25, p. 92).

The temple at Tirukkuhukavūr in the Sirkali Taluk in the far northeastern part of the delta has the same layout as that at *Gōvīṇḍaputtūr*. Fortunately,

there is a most reliable inscription reporting that the koyil at Tirukkuhukavūr was completed in A.D.982 i.e. after the end of the pañjara phase. It was also financed by an ordinary citizen, Semban Arulan Uttama Nidhi, alias Uttama Coḷa Muvendavelan, the same person who in A.D.984 built the shrine at Gandaradittam with exactly the same

Comparing these three "citizen koyils", some interesting features can be observed. First of all, the adhiṣṭhānas of the temples at Gandaradittam and Gōvīndaputtūr betray the same workmanship and were probably designed by one and the same artist. Both have a kapota-moulding decorated with small, but delicate kūḍus and a rounded kumuda. Secondly, the entire building at Gōvīndaputtūr stands on an ogeed, lotus-jagatī; that at Gandaradittam is placed on a straight moulding which in its turn rests on an upāna decorated with a padma-bandha except for the central, protruding parts. In the third place, the ornamental quality of these two neighbouring monuments is not repeated in the third "citizen koyil" situated in the extreme east of the delta. For, here all parts of the base are straight and plain. It is therefore likely that the people of Gōvīndaputtūr and Gandaradittam were able to attract more talented artist from the workshop of Śembyan Mahādevī than the architect appointed by the villagers of the shrine at Tirukkuhukavūr.

Consequently, we tend to regard the ardhamāṇḍapas with three niches as a kind of hall-mark of the temples financed by Śembyan Mahadevi. Perhaps only she, being a queen, had the means to bear the cost of the six sculptures, needed for this type of māṇḍapa. For the moment we can draw the tentative conclusion that between A.D.970 and 990 ardhamāṇḍapas with three niches as well as with only one niche were built, depending on the person who had financed the construction.

21. *The Ādimoulīśvara at Tiruppalturāi* (Pl. 56).

The Ādimoulīśvara is an I-1-a vimāna with an ardhamāṇḍapa connected directly with it. There is one niche in each wall of the porch. The temple lies in the centre of the old Muttaraiyar area.

Barrett dated it before A.D.925 which we find difficult to accept. Admittedly, the ground-plan is simple and the false antarāla is missing, but as we already pointed out in the case of the shrine at Tirukkaliṭṭattai (p. 13) the absence of this connecting element could also be due to scarcity of financial means. One of the inscriptions on the Ādimoulīśvara mentions that the village assembly commissioned the engraving on the walls of the new koyil of two old records of Parāntaka I which had been discovered on the steps of the previous building. This took place in A.D.977 after a donor had been giving financial

to the temple since A.D.957. Apart from the two records of Parāntaka I from A.D.927 and 925, there are other inscriptions on its walls dating A.D.959 and 961 which mention the names of donors and their gifts. If we see that a renovation started around A.D.976, then it is incomprehensible we are not told that the second group of records were also re-engraved. It is why we believe that the reconstruction must have taken place around 950 and that some fifteen years later the old steps of the original shrine were discovered accidentally in a heap of rubbish or debris and found to be covered with old inscriptions. Such a course of affairs could explain why the discovery was reported in such a special way.

It would seem that the village assembly took the fate of this shrine into its own hands and repaired the dilapidated building without outside help and they maintained the ground-plan of the original temple. The period during which the gifts were donated (A.D.957-961), indicates that the days of peace and prosperity under Uttama Coḷa had not yet commenced. One could almost imagine that if the village assembly had acted less hastily, they could have rebuilt the temple under royal patronage with the pomp and circumstance so typical of the Śembyan Mahādevī monuments.

From Balasubrahmanyam's concluding remark it seems that he believed that the inscriptions were re-engraved on the original temple walls, for he wrote "This is a temple of the 9th century", although he stated elsewhere that this suggests a renovation of the temple," thus showing that he continued to hold an unshaken belief in the authority of records ignoring the importance of historic arguments.

When we compare the small koyil at Tiruppalturai with that at Tirukkaliṭṭai (Pl. 54) which is equally simple, then, apart from the similarities in style, the contents of their inscriptions seem to confirm that in the gloomy years preceding the reign of Uttama Coḷa, the architects reverted to vimānas with a simple ground-plan and a small ardhamaṇḍapa without further embellishments in those cases in which postponement of repair was no longer justified.

The Sundarēśvara at Nangavaram.

Balasubrahmanyam and Barrett dated this II-2-b koyil ca. A.D. 917 on the basis of a record of the 10th regnal year of a Parakesari which refers to a splendid gift by a consort of Śembyan Irukkuvel. Moreover, Barrett believed that the architecture of this shrine supports this date. Since we have rejected his classification, as it could be proved to be inconsistent, we do not see how this argument can be substantiated.

The monument at Nangavaram lies in the periphery of the Sapta Sthāna group, but near Aṇḍanallūr and the fine II-2-b vimāna at Tiruchchendurai (no. 14, appendix 7). The latter was built either before or about A.D. 895 (p. 110). The oldest, securely dated inscription on the temple at Nangavaram was issued in A.D. 911. The building belongs to a group of monuments which, among others, were constructed under the patronage of an Irukkuveḷ chief and which includes that at Aṇḍanallūr (p. 110). One of their main characteristics is the absence of niches in the walls of their ardhamaṇḍapas. In other respects the architects engaged by the Irukkuveḷs seem to have copied the group of the Sapta Sthānas. The temple at Aṇḍanallūr has a II-4-b layout with a straight base as appears from the paṭṭikā only just sticking out of the pavement surrounding the shrine; that at Tiruchchendurai and Nangavaram both display the II-1 layout but differ in other respects: the former has a lotus adhiṣṭhāna and square śikhara, the latter has a straight base and a round śikhara.

When discussing the diversity within the small Sapta Sthāna group, we already pointed out that variation within a small area is rather an indication of unity than of an independent development (p. 104). We therefore do not agree with Soundara Rajan's view that these three koyils were erected in the course of one century and according to two different styles,³⁹⁾ viz.

- the monument at Nangavaram in A.D. 845 by the Muttaraiyars;
- the monument at Tiruchchendurai in A.D. 910 by the Irukkuveḷs and
- the monument at Aṇḍanallūr in A.D. 935 built by the same people.

The koyil at Nangavaram is not a tritala, as he believed, but a dvitala, whereas the niches — not shown in his illustration — all belong to the fully developed type (cf. Fig. 29d, p. 98). The last applies to the other monuments as well. This is precisely why we believe that all koyils along the western Kāverī were constructed after the Sapta Sthānas since these buildings illustrate how the most satisfactory shape of the devakoṣṭha was finally discovered. Consequently we consider the group of shrines west of the Sapta Sthānas also as a unit. The determination of their chronological sequence is neither relevant, nor possible because the temples from which certain elements were copied, were already in existence.

In order to support our view that temples were erected along the western Kāverī between A.D. 895 — ten years after the first II-2-b vimānas in the group of Sapta Sthānas were designed — and A.D. 910 (p. 110), we shall now discuss the shrines at Aḷlūr. They do not appear in Soundara Rajan's controversial publication, although they belong physically and geographically to this group of monuments along the western Kāverī. For a final discussion of these "Irukkuveḷ" monuments, we refer to chapter four (pp. 278-300).

-i. *The Pañcanādiśvara and the Paśupatiśvara at Alḷūr* (Pls. 57a-b).
 The Sundareśvara at Nangavaram, the Pañcanadiśvara is a II-2-b vimāna.
 However, two different shapes are applied in its adhiṣṭhāna: a lotus base under the central niche of the garbhagrha and everywhere else an unusual adhi-
 ṣṭhāna similar to that of the Koranganātha at Śrīnivāsanaḷlūr (Pl. 31).
 Paśupatiśvara has the same type of vimāna, but its base is of the simple,
 straight kind. At present it is an ekatala which may be due to renovation.
 Corner of the buildings shows traces of niches in the walls of their ardha-
 maṇḍapas.

The oldest inscription on the Pañcanadiśvara which is securely dated, re-
 cords a gift in A.D. 913. The oldest record on the Paśupatiśvara dates from
 A.D. 924. The contents of both inscriptions, therefore, allow us to date both
 temples well before A.D. 910 instead of in A.D. 913 and 924. When discussing the
 walls we shall return to these two koyils, since the absence of this feature on
 their walls allows us to attribute them to the late 9th century (pp. 214-29).

-i. *The Airāvateśvara at Nemam* (Pl. 59).

Barrett's rather vague opinion about this vimāna is surprising. He dated
 it by way of precaution before A.D. 940, i.e. during the period in which he
 believed that the Gomukteśvara at Tiruvādūtūrai was built.⁴⁰ Balasubrahmanyam
 rightly trusted the genuineness of a Rājakesari inscription of A.D. 895 and,
 consequently, dated the shrine around this year.

The Airāvateśvara is a II-2-b vimāna without pañjaras and without niches
 in the walls of its ardhamāṇḍapa.⁴¹ For the sake of completeness it must be
 noted that the false antarāla is also lacking, although this was an established
 part of each and every temple ever since the Gomukteśvara at Tiruvādūtūrai was
 finished (no. 4, appendix 8). Barrett admitted that many aspects of the latter
 belong to his "first phase".⁴² Consequently, we prefer to compare the shrine
 at Nemam with those at Tiruchchātturai (no. 4, appendix 7) and Tiruvēdikkudi (no.
 4, appendix 7), although it is a simplified version of these two shrines. Its
 adhiṣṭhāna up to and including the two rows of panels under the pilasters re-
 sembles that of the koyil at Tiruvēdikkudi. Its ground-plan and ardhamāṇḍapa
 without niches can be compared with the same elements of the monument at
 Tiruchchātturai dated in A.D. 883, this all the more so, since its śikhara is square
 and not round, as Balasubrahmanyam believed (cf. Pl. 26). On the other hand
 it shares the rather unusual dvārapālas on the walls of the second tala with
 the koyil at Tiruvēdikkudi (cf. Pl. 25) and the Candraśekhara at Tiruchchen-
 turai.

Apart from its strong resemblance to some monuments of the Sapta Sthāna group, there are other indications that this shrine at Nemam should be dated between A.D. 884 and the year of its oldest inscription, viz. A.D. 895. The absence of a niche in the arhamanḍapa indicates that the architect had not yet decided the final composition of its walls, an aspect to be dealt with in the next paragraph. The vari on this building could indicate that the Airavateśvara was one of the first shrines in this region on which this element was tried out. The development of this thin, decorative band will be discussed in the next chapter (pp. 214-19).

25. *The Agnīśvara at Tirukkāṭṭuppalḷi* (Pls. 58a-b).

No inscriptions occur on this I-2-a koyil. In this respect it resembles the Muttaraiyar shrines. Another aspect also seems to indicate that we are dealing with an example of their style, for originally there were no devakoṣṭhas in the walls of this vimāna (p. 103). Pl. 58b clearly shows that a niche was cut out in a far too small space later on. On the other hand, the walls show an element completely unknown in the Muttaraiyar area: the vari or thin lotusband above the adhiṣṭhāna. However, the praṇāla is located in the kumuda, indicating the level of the floor inside the garbhagrha. So, it is conceivable that a new temple was erected on the remains of an old Muttaraiyar building of which only the jagatī was still intact.

The wide margins in the datings of both Balasubrahmanyam and Barrett obviously result from the fact that neither of them could produce any arguments. However, the original temple cannot have been built within the proposed periods (A.D. 870-900 and A.D. 870-940), for the fact that originally the vimāna had no niches, indicates that it was raised before Āditya I came to power, i.e. before A.D. 870.

26. *The Divyajñāneśvara at Kōvilāḍi* (Pl. B1).

This temple has again the I-1-a form which we met at Tirukkalitṭattai (p. 139) and Tiruppalturai (p. 140). According to an inscription the original, brick vimāna was renovated, presumably in A.D. 952 by a person who also rebuilt the Pīṭīśvara at Tiruverumbūr (p. 11B)⁴³ In the record the word "vimāna" is used but without the aid of vastuśāstras the meaning of words indicating various parts of a temple is not always quite clear, as Balasubrahmanyam already showed in connection with the term kudap-padai in an record on the Gomukteśva

Tiruvādūtūrai (p.126). Consequently, we believe that the word "vimāna" may have meant only the roof, an interpretation which we already suggested in our discussion of the koyil at Tiruveṇṇambūr (p.120). This may also have been the case with the temple at Kōvilāḍi but, unfortunately, it can no longer be proved, since the present building is much younger than Balasubrahmanyam and Barrett assumed. It is a box on a kind of hotch-potch upāna, a temple element which at that time was still completely unknown in the delta. We are, therefore, not surprised that there are no pañjaras, since no chisel ever touched this shrine.

Of all I-1-a vimānas discussed so far this building is really the most striking example of inability. Consequently, we are not prepared to consider it an Early Coḷa monument. It is a late renovation on which inscriptions of the original shrine were re-engraved or in which stones with old records were employed, as we shall demonstrate later on.

The Naltunai Īśvara at Puñjai (Pls. 60a-c and 79a).

After the monstrosity just dealt with, this monument is a relief, for it is simple. It is the last example of the group with a I-1-a layout to be discussed. Its location in the northeastern delta is eccentric for here no other I-1-a vimānas are found, except for that at Tirumiyachchūr — an elephant's head — the renovated temple at Tirukkoḷikkāḍu and the Wanyaganātha at Tiruvelangai belonging to the same complex as the Acaleśvara, but built in the 11th century (Fig. 58, p. 303). Apart from the shape of their vimānas, these four buildings also share the fact that none of them can be firmly dated before the days of Rājarāja I on the basis of their inscriptions. The oldest reliable record on the temple at Puñjai dates from A.D.1007. True, an older inscription was found in the compound, but this is engraved on the Candēśvara parivāṭaya and mentions the 4th regnal year of a Parakesari, whom Barrett and Balasubrahmanyam assumed to be Āditya II (A.D.964-969). For both authors this record was the main reason to date the other shrine also before the 4th regnal year of the king, i.e. before A.D.958. Barrett went even further, for he believed that the Naltunai Īśvara at Puñjai is the precursor of the temple at Tiruvādūtūrai (no.4 appendix 8), because all its decorations are more beautiful than those at Tiruvādūtūrai, which to him means older. We agree that the decoration of the Naltunai Īśvara is very beautiful, but the śikhara is horrible, which does not prove this monument to be younger.

Barrett's second point was more objective, for he assumed that the number of niches in the ardhamāṇḍapa increased according to an arithmetical series one, two, three. Since the Naltunai Īśvara has only two niches in the southern

wall of its ardhamandapa and the Gomukteśvara at Tiruvādūtūrai according to Barrett three, the Naltunai Īśvara should be older. In our discussion of the Gomukteśvara (pp.123-26), we were able to prove that in this particular case Barrett was wrong. For, the northern ardhamandapa wall of the Gomukteśvara has only one niche with blind niches on either side and the southern wall has two niches and one blind niche, for the sake of symmetry. The northern wall of the Naltunai Īśvara also has only one niche; the southern wall on the other hand has two, distributed over the whole width in a well-balanced manner, a solution which made a blind niche superfluous.

We wonder whether it is not equally possible that this development went through a phase represented by a hall with two niches when the need for ardhamandapas with three niches was no longer felt due to the fact that mukhamandapas - which are much larger - began to be added to the vimānas. These large, square halls became popular during the reign of Rājarāja I. In the next paragraph we shall be able to prove that in the last decade of the 10th century - then already too large - ardhamandapa with three niches became redundant, because the mukhamandapa offered far more space to the greater number of images and worshippers than an ardhamandapa could ever do. Consequently, it is quite possible that the temple at Puñjai - as its own inscription indicates - dates from the time of Rājarāja I. If so, it is an aberration in all other respects. However, it would also have been an anomaly if it had been constructed during the reign of Parāntaka I. So, our deviating point of view seems as legitimate as that of Baḷasubrahmanyam and Barrett.

If the Naltunai Īśvara should indeed be a precursor of the monument at Tiruvādūtūrai, then we cannot understand why the pañjara element which was current at that time was left out, although it would undoubtedly have pleased the gifted sculptors of this shrine. The monument at Puñjai gives rather the impression that its architect made a journey through the delta collecting ideas to be incorporated in his project. The temple's gigantic open kūḍus remind us of Tiruchchennampūṇḍi (Pl. 35a), the vyāli frieze of Tirukkaḷuvūr (Pl. 53) and the long antarāla of Lalgudi (Pl. 32), while the enormously heavy śikhara is similar to that at Tirumayānam (Pl. 43a). As noted previously (pp. 131, 134-35), the period after A.D.990 is characterized by a revival of old forms. In view of the architecture and the inscription from the 22nd regnal year of Rājarāja I, it seems quite reasonable to date the temple at Puñjai between A.D.990 and 1007.

If indeed there was a tendency to reduce the number of niches in the ardhamandapa walls to one, then the presence of that remarkable second niche

the Agastya image poses a problem. Yet, we can well imagine why the popular figure of Agastya was not removed from the outside of the ardhamandapa wall. The pot-bellied, friendly saint who, in character and appearance is so similar to his neighbour Gaṇeśa, had become an accepted feature in the southern ardhamandapa wall since the construction of the shrine at Tiruvādūtūrai.⁴⁴ From that time onwards he occupies a fixed place in the iconographical layout, although his other manifestations are occasionally missing and in any case do not yet occupy fixed places. When the stone ardhamandapa sculptures started to be replaced by expensive bronze images and were stored in the mukhamandapa the worshippers showed a touching attachment to the beloved old saint by letting him retain his place of honour on the outside wall — at least this is how we, some thousand years later, should like to interpret the course of events.

The fact that the sthāpati of the Naltunai Tīvara at Puñjai was somehow able to incorporate the anomaly of two niches in the total concept of the southern ardhamandapa wall in a more harmonious way than the builder of the Gomukteśvara at Tiruvādūtūrai — where the asymmetric arrangement does not seem to be a particularly good idea — also pleads for a construction of the Naltunai Tīvara after that of the Gomukteśvara.

The Anāntheśvarasvāmin at Uḍaiyārgudi (Pls. 61a-b).

The present building has a I-2-b vimāna. The temple lies outside the delta, but from a hydrographical point of view it still belongs to it. For Uḍaiyārgudi is near the enormous Viranyam tank which draws its waters from the Coleroon. In such, the village lands are part of the delta economy.

The village was founded by Parāntaka I (A.D. 907-955) who constructed the shrine. Presumably, the shrine was also commissioned by him, for one of its names is. On the other hand, it could have been called after him some time after his death. Balasubrahmanyam advocated the first opinion, while Barrett opted for the second. Balasubrahmanyam considered a record from the 33rd regnal year of Parakesari to be genuine and contemporary with the building, implying that the shrine existed already in A.D. 940, for such a high regnal year can only be associated with Parāntaka I. Barrett, however, tried to prove at great length that the ardhamandapa originally must have had six niches, an indication that the construction took place shortly before A.D. 970, when the first koyils of this type were built in the delta (cf. Fig. 25, p. 92). Unfortunately, the present hall has only one niche in each wall, so we cannot agree with Barrett's reasoning, since even cut-out niches are absent, which makes it impossible to classify this monument as a II.b.1 type, according to his typology.⁴⁵ His only

argument is the information that in the 2nd regnal year of Āditya II a gift was made to this temple in order to set up shrines(the inscription uses the word koyil) for Naṭarāja, Gaṇeśa and Bhikṣāṭana. Barrett interpreted the word "koyil" here as "devakoṣṭha". Since neither the devakoṣṭhas nor the actual shrines have survived it is impossible to decide which interpretation is correct. However, as the walls do not show any cutting or elaborated carving we can safely assume that the record referred to small shrines of the parivāra-vatā class.

Having eliminated the attribution of the temple to a date around A.D.960-7 we now have to consider the possibility that the shrine in question was built in the reign of Parāntaka I as Balasubrahmanyam advocated. This means that it can be compared with the I-2-a koyils in the delta (appendix 8) or with the II-2-b vimānas in South Arcot (Fig. 27, p.96). In both cases the (I)-2-b feature of the building is an anomaly, so we have to reconsider this statement. However, we are not sure whether the present number of talas are part of the original shrine, since the grīvā-niche is unique in that it is covered by a kapota. This feature was first introduced in the days of Rājendra I as new element over the devakoṣṭhas in the walls of an ardhamandapa (cf. the Amman or Pārvatī shrine at Gaṅgaikōṇḍaḥapuram, Pl. 19b). In view of the fact that Uḍaiyārgudi has to be considered as part of the delta and that, consequently, its temple belongs to the delta idiom, it seems likely that the original koyil was built according to strict, proportionate lines — a characteristic of all delta temples — implying that it must have been a II-2-b vimāna, on account of its six pilasters in each wall. This type was common in the days that Parāntaka I had his headquarters in South Arcot and examples of it can be found at Grāmam and Īḷiyanūr. However, these shrines do not have the false antarāla which we find in the Anāntheśvarasvāmin at Uḍaiyārgudi and all other delta temples of that period. It rather looks as if the hybrid, geographical location of this monument both in the delta and in South Arcot is reflected in its construction: the vimāna belongs to the category of koyils built in South Arcot in the middle of the 10th century, its ardhamandapa to the idiom prevailing in the delta at that time. In this way the absence of pañjaras in the walls of this vimāna can be explained — an absence which was responsible for the discussion of all temples listed in appendix 9.

29. *The Ujjīvanātha at Uyyakkōṇḍān Tirumalai.*

This (II)-1-a temple lies on the border of the area with II-2-b and I-1-a vimānas (map 5). According to Balasubrahmanyam a number of early records were

on the pillars around the central shrine, the oldest dating from 317. Inscriptions on pillars do not inspire confidence. The place of the records, viz. those of Uttama Coḷa and Rājarāja I, is not mentioned but are probably engraved on the central shrine. We may, therefore, assume an old temple was renovated either before A.D. 979, the date of an "income" record, or before A.D. 955, the year in which Śembyan Mahādevī offered a costly jewelled crown to the deity. From the presence of a detached image of Śrīhanārī Balasubrahmanyam concluded that the temple dates from the time of Rājarāja I, for this manifestation of Śiva was popular during the reign of this king. The illustration of the figure in question shows a crude sculpture which could never have been the original.⁴⁶⁾ That is why we believe that the temple was rebuilt in the days of Śembyan Mahādevī, because her inscription is on the new parts of this koyil and not on the pillars. Since the original layout — including the position of the niches — was maintained these renovated parts lie above the paṭṭikā. This course of events seems likely, because the records of Parāntaka I which were undoubtedly first engraved on the walls over the paṭṭikā, are now re-engraved on the pillars. Otherwise, they would still have been in their old place, i.e. the base under the paṭṭikā.

So, there are two explanations for the absence of pañjaras on this temple. Firstly, the renovation did not take place in the pañjara phase and secondly, the base was retained the size of which did not allow for extra embellishments such as pañjaras.

.....

We are now able to draw a final conclusion from our detailed discussion of the monuments dealt with in the last two paragraphs. For, we can now divide the pañjara phase, which we assumed in our hypothesis (p. 116) to run for about 70 years, i.e. from A.D. 900-970, into: 1. a first phase lasting for less than half a century, i.e. from ca. A.D. 900 (Tiruveṇṇambūr, Puḷḷamaṅgai) till A.D. 940 (Vīlādevārāyanpēṭṭai), characterized by a reverse development of the functional aspects of the pañjara; 2. a second phase from A.D. 940 onwards in which any form of the pañjaras was considered acceptable but not required.

With regard to the shrines without pañjaras built in the pañjara region or during the pañjara phase we saw that between A.D. 940-70 some tiny I-1-a vimānas were built and financed by villagers (appendix 9, nos. 19 and 21), while between A.D. 970-990 two groups of koyils could be distinguished, viz. (I-2-a) shrines commissioned under royal patronage and those which were raised at the instigation of well-to-do citizens (appendix 9, no. 20, note 4). The main differences between the last two groups

of monuments is the number of niches in the walls of their ardhamandapas. In the next paragraph we shall deal with this subject, since we assumed an inverse relationship between the disappearance of pañjaras and the appearance of more niches in the walls of ardhamandapas (p. 116).

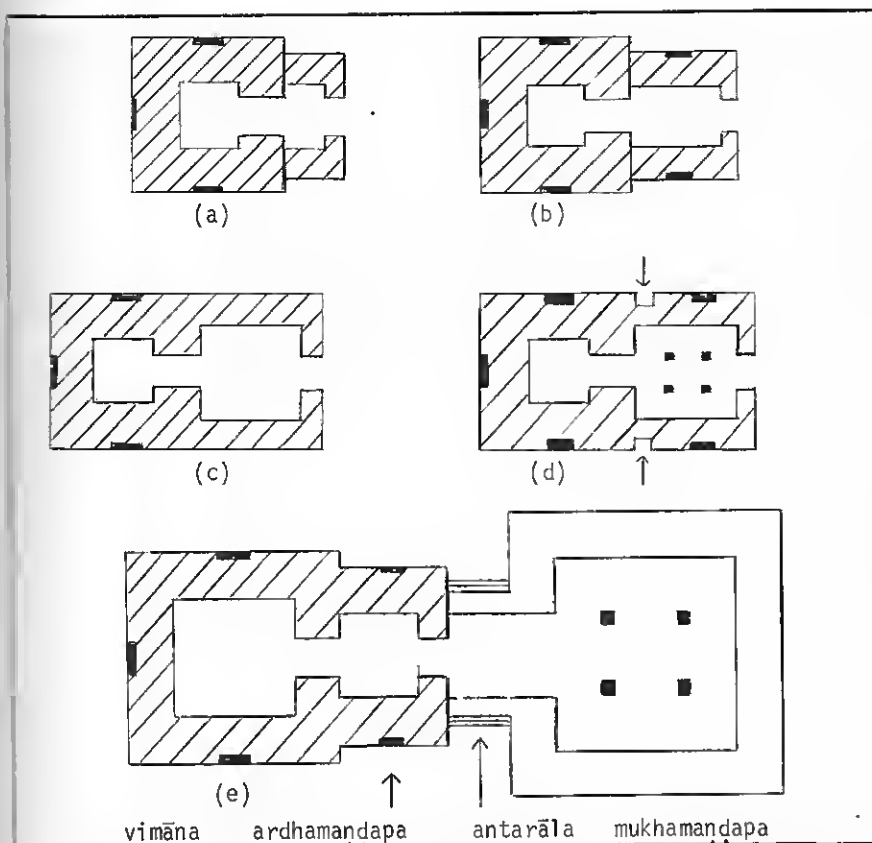
4. Distribution of the ardhamandapa variants

4.1. Introduction and typology.

From the preceding paragraphs it has become clear that an ardhamandapa is a part of the temple which is characterized by the number of niches in its walls and the way it is attached to the vimāna.

At first, an ardhamandapa was not more than a small porch, considerably narrower than the vimāna itself (Fig. 33a). There was just enough room for a priest and an occasional worshipper. Images could not possibly be placed inside. The walls of these early ardhamandapas were too short to include niches on the outside and so the images were usually accommodated in the courtyard around the main building in far smaller shrines along the prakāra walls, as can be seen, for instance, in the Kailāsanātha at Kāñcī, or in the aṣṭapari-vāradevatā chapels in the Muttaraiyār area.

When niches started to appear in Early Coḷa architecture on the outer walls of the ardhamandapas the architects had to design walls which had to be slightly longer (Fig. 33b). However, even such an enlarged ardhamandapa was still too narrow to accommodate in a convenient way the Śaiva worshippers and the growing number of images. This was only possible by widening the porch which created the problem that the transition between the vimāna and its ardhamandapa could no longer be distinguished on the outside as indicated in Fig. 33c. To mark the point where the domain of the enshrined god runs over into the domain of his worshippers, the thickness of the wall was, therefore(?), slightly reduced (Fig. 33d). Barrett called this small recess a "false" antarāla, because the recess introduced by the Coḷas suggests the presence of an antarāla or corridor. In due course even the enlarged ardhamandapa proved to be too small for the ever increasing socio-religious functions which had to be performed outside the temple. Thus, a more spacious building was required. A large, covered and walled mukhamandapa now became the third structural part of the temple building (Fig. 33e). As a result the wall-surface in which sculptures could be placed increased considerably. At the same time the need for a wide ardhamandapa decreased. There does not seem to exist a relation between the size of a vimāna and the length of its ardhamandapa.⁴⁷⁾



33. Development of the ardhamandapa in Early Coḷa architecture.

- (a) a porch connected directly with the vimāna and without niches.
- (b) same, with one niche in each wall of the ardhamandapa.
- (c) an enlarged porch as wide as the vimāna and with one niche in each wall.
- (d) an enlarged porch as wide as the vimāna and one (or three) niche(s) in each wall; the transition between the vimāna and ardhamandapa is indicated by means of a receding "false" antarāla; roof supported by pillars.
- (e) a porch connected directly with the vimāna; a mukhamandapa is attached by means of an antarāla or steps.

The size of the vimānas varies between 4 and 6 m².

We can distinguish two main types: 1. the old form indicated as type A, i.e. ardhamandapa which is less wide than the vimāna and attached directly to it (Figs. 33a-b, e) and 2. type B with a porch as wide as the vimāna and a false antarāla (Figs. 33c-d) but c is merely a hypothetical form. In general type B is younger than type A, except when type A occurs in combination with a mukhamandapa (Fig. 33e), which is contemporary with the whole building. These two main types can be subdivided on grounds of the number of niches

varying from none to three. Theoretically the complete typology could consist of A-0, A-1, A-2, A-3, B-0, B-1, B-2 and B-3. However, the combination B-0 does not exist, because type B was especially created to increase wall-space for niches. The theoretical types A-2 and B-2 do not exist either. We have already discussed the very unusual phenomenon of two niches on the southern ardhamandapa wall of the monument at Puñjai (pp. 145-47) and the problematic niches in the Gomukteśvara at Tiruvādūtūrai (pp. 125-26) which were wrongly interpreted by Barrett.⁴⁸ As far as we know there are no other examples with two niches in the walls of an ardhamandapa.

We believe that, in principle, the wall treatment of the porch is the same as that of the vimāna, i.e. the emphasis lies on the central part of a wall by reserving it for a niche. In case it was decided to use also the wall-space on either side of the central niche, then two lateral niches or two pañjaras could be added resulting in types A-3 and B-3 or A-1^P and B-1^P in which P means pañjara. So, in total five different types of ardhamandapas existed: A-0, A-1, A-3, B-1 and B-3. Types A-1^P and B-1^P then can be considered variants of A-1 and B-1 respectively.

As we have seen, the presence of pañjaras flanking the central devakoṣṭha of a vimāna, forced the architects to use the walls of the ardhamandapas for extra niches. At first they copied the vimāna walls by adding pañjaras on the walls of the ardhamandapa next to the one and only niche as on the Brahmapurīśvara at Puḷḷamaṅgai (p. 124). Gradually, when the need for more niches increased the pañjaras disappeared from both the vimāna and the ardhamandapa, to be replaced by extra niches in the walls of the ardhamandapa only. Since by that time type B had become popular, B-3 ardhamandapas were the result. The moment the mukhamandapas were introduced type B disappeared. It is likely though, that the custom to design ardhamandapas with three niches lingered on in spite of the changed ground-plan. Type A-3 must, therefore, be considered the successor of type B-3. Since we saw the revival of non-functional pañjaras on the walls of the vimāna at Kuttālam from ca. A.D. 992 (p. 131) we should not be surprised to find pañjara-decorated ardhamandapas as well.

In the following paragraphs we shall describe the distribution of the five ardhamandapa types just mentioned, in their supposed chronological sequence A-0, A-1, B-1, B-3 and A-3, including the ardhamandapas with pañjaras on either side of their devakoṣṭhas which so far were not yet dealt with in the paragraph concerning the pañjaras on the walls of vimānas (pp. 118-37).

4.2 Distribution of the ardhamandapa variants; determination and description of uniform regions

The Kāverī region can be divided into two parts (map 6): the A-area west of Tiruppalanam(Tp) and the B-area to its east. Except for the northern bank of the undivided Kāverī, the entire region west of the Sapta Sthānas is a A-0 area. Differentiation within this large region is only due to the varying number of niches in the vimāna walls. In the Muttaraiyar tract no niches were designed. We can, therefore, describe it as a 0-A-0 area. In the so-called Irukkuvel and Paḷḷuvettaraiyar tracts one niche in each vimāna wall was customary (1-A-0). North of the undivided Kāverī the 1-A-1 combination can be observed.

As we already saw with regard to other aspects, the Sapta Sthānas again display a great variety. In combination with the number of niches in the walls of their vimānas we can classify them as follows(cf. appendix 7, column 3): Tiruppalanam: 3-A-3, Tillaisthānam: 3-A-0, Tiruvēdikkudi: 3-A-1, Tiruchchatturthi, Tiruvaiyāṇū and Melatirupūndurutti: 1-A-0 and Tirukkaṇḍiyūr 1-A-1.

The B-3 ardhamandapas are located in the centre of the delta between areas in which B-1 halls were designed. The impression is created that the southern part of the delta is once more characterized by A-1 ardhamandapas, but these are — except for two renovated shrines at Tirumayānam(pp. 128-29) and Tirukcīllickaḍu — later than the Early Coḷa period.

South Arcot presents a concentrical picture: an A-0 core with an A-1 shell, surrounded by B-1 ardhamandapas. Here, all temples have only one niche in the walls of their vimānas.

In the Palar region only A-1 ardhamandapas occur, except at Parameśvara-ṅgalam(P) and Tennēri(T) which have B-1 and A-3 halls respectively. The Palaya monuments belong to type A-0, although in some cases there are sculptures on the walls or a pair of pilasters has been added which creates the impression of a (blind) niche.

Comparing these three large river areas, the following statements can be made:

1. the stylistic development characteristic of the Coḷas seems to occur in the delta only and shows a strong trend from west to east;
2. the areas of the Muttaraiyars, Irukkuvels and Paḷḷuvettaraiyars appear to have been an insurmountable barrier for certain Coḷa innovations;
3. the stylistic development in South Arcot spreads out from an old core as was the case in the delta;

4. the Palar region, obviously, lay outside the sphere of Coḷa influence during the period in which in the delta the form of the ardhamaṇḍapa changed considerably ever since the first A-1 hall was built.

Anomalies in the distribution-patterns can only be observed in the large Kāverī area and its surroundings. They are listed in Table B. It is remarkable that the controversial monuments at Śrīnivāsanallūr and Kumbakonam reappear. The Sapta Sthānas are an explosion of different shapes in an otherwise uniform region.

Table B.

Anomalies in the distribution-pattern on map 6.

District	Name of the village	layout	locational context
Kāverī area (incl. the Tañjavūr and Tiruchirappalli Districts.	Śrīnivāsanallūr	3-A-0/1-?-1 ¹⁾	1-A-1
	Tiruchchennampūṇḍi	3-A-1	
	Tiruppalanam	3-A-3	
	Tillaiasthānam	3-A-0	
	Tiruvēdikkudi	3-A-1	
	Tiruchchātturai	1-A-0	
	Tiruvaiyāṟū	1-A-0	
	Tirukkandīyūr	1-A-1	
	Melatiruppūndurutti	1-A-0	
	Laigudi	1-A-0/1-?-0 ¹⁾	
Tiruchirappalli	Karandai	1-B-1	1-A-0
	Vēḍaranyam	0-A-0	
	Kumbakonam	3-A-1	
South Arcot	Chittūr	1-A-1	1-A-0
	Nārttāmalai (Melakkadambūr)	1-B-1	
North Arcot	Brahmadēśam (Patalīśvara)	1-B-3	1-B-1/1-A-1
Chingleput	Tennēri	1-A-3	1-A-1
	Paramēśvaramaṅgalam	1-B-1	

1) see our discussion on the hybrid character of this building on p. 107.

□ Sapta Sthānas.

4.3. Chronology of the uniform regions.

In Fig. 34 we have combined a number of data discussed in the previous paragraphs in a diagram in order to show how much the contribution of the Coḷa to South Indian architecture varies from district to district. Reading the diagram from left to right we see that the uniform picture on map 6 of the

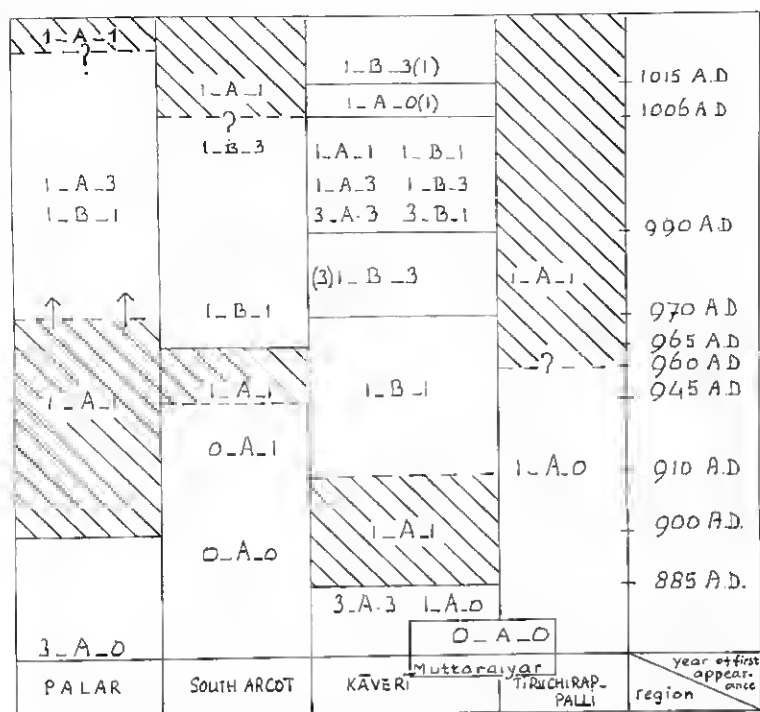


Fig. 34. Characteristic development of the temple lay-out in each major region.

1-A-1 temples in the Palar region is demarcated in time between ca. A.D. 900 and 970. In analogy to what happened in the delta we assume that the 1-B-1 shrine at Paramēśvaramāṅgalam preceded the 1-A-3 monument at Tennēri. Balasubrahmanyam was probably right when he attributed the former to the days of Uttama Chōla (A.D. 969-985).⁴⁹ The Kaṇḍaliśvara at Tennēri was definitely built before A.D. 995.⁵⁰ Whether all 1-A-1 koyils were designed after A.D. 900 — a year in which the shrine at Tiruttāni might have been built (Fig. 27, p. 96) — and before the construction of the shrine at Paramēśvaramāṅgalam, or rather date from the 11th century, will be discussed in the next chapter in which other criteria than the general layout will be taken into consideration.

The chronological sequence proposed for the vimānas in South Arcot (Fig. 27, p. 96) seems to confirm that the development of the ardhamāṇḍapa runs from 1-1 to B-1, eventually even followed by one example of a B-3 ardhamāṇḍapa at Brahmadēśam (map 6). We may draw the conclusion that it became customary to construct ardhamāṇḍapas of the B-1 type as from ca. A.D. 960 (at Kīlūr) to

A.D. 1006 (at Dadapuram). According to Balasubrahmanyam the only two exceptions are the B-1 shrine at Tiruvāṇḍārkōyil (appendix 13, no.8) which he attributes to ca. 922 and that at Brahmadeśam, a 1-B-3 monument from between A.D.1015 and 1044 (appendix 13, no.19)..

Some Parakesari inscriptions on the walls of the shrine at Tiruvāṇḍārkōyil possibly dating from the time of Parāntaka I, have indeed been found.⁵¹⁾ The fact that a record of the year A.D.990 mentions that a gift of land was made in the 14th regnal year of Parāntaka I (i.e. A.O. 922) could indicate that the temple was renovated or even reconstructed in the last decade of the 10th century and that the old inscription recording the royal gift of A.O.922 was at that time re-engraved. For the time being we should like to date this monument between A.D.960 and 990.

The 1-B-3 shrine at Brahmadesam was built later. Its earliest inscription dates from the 24th regnal year of Rājendra I (A.D. 1036). So, Balasubrahmanyam assumed that it was built after A.D. 1015. Since there are very few records of temples of either Rājarāja I or of his son, the absence of inscriptions on the monument in question mentioning these rulers does not exclude the possibility that it was erected in the reign of Rājarāja I.⁵²⁾

In South Arcot the period between A.D.910 and 960 remains obscure (Fig. p. 96). The shrine at Kīḷiyanūr belongs to the 1-A-0 type (appendix 13, no. 3) that at Grāmam has a niche in the walls of its ardhamāṇḍapa, but in the latter we have observed cut-out niches, making it an example of a 0-A-1 temple (appendix 13, no.4). This implies that we are not in a position to judge when the first 1-A-1 monument was built in this district. We shall return to this problem in the next chapter.

Leaving the delta temples till the end, we now turn to the monuments in the Tiruchirappalli District. As already observed, it is basically an 1-A-0 type (map 6). In view of the renovation from the adhiṣṭhāna upwards of the Agnīśvara at Tiruveṇṇambūr (pp. 119-20) and of the shrine at Uyyakkōṇḍān Tiruchirappalli (p. 149), we may assume that around A.D.950 it became customary even in this region to add niches in the ardhamāṇḍapa walls. The Agnīśvara at Chittoor (on map 6, (appendix 14, no. 11) apparently belongs to the 1-A-1 category. Originally, it must have been a 1-A-0 building. The pilasters and corbels of the vimāna are different from those of the ardhamāṇḍapa, indicating that the two are not contemporary. Furthermore, the shrine has the regional, II-2-b layout (map 5), a feature which it has in common with the Mucalīśvara at Koḍumbāḷūr from A.D.920 (appendix 14, no. 9).⁵³⁾ The only surviving

1-A-1 monument is the Melakkadambūr at Nārttāmalai. Balasubrahmanyam attributes shrine to ca. A.D.1007,⁵⁴) but this date is contradicted by the presence of the makaratorāṇa, the podigai and the kapota (appendix 6). It should be dated as a building of at least the Middle Coḷa period.

If this shrine is eliminated, the Early Coḷa phase is represented in this area by a few original 1-A-1 monuments all located north of the Kāverī. Another date for the characteristic 1-A-0 koyils has to wait till we know more about their features which will be discussed in the next chapter.

The situation in the delta is more complicated than in the outlying provinces as can be expected of a cultural melting-pot. In two periods a multiplicity of new or varying forms can be noticed: during the time the Sapta Sthānas were designed and, a century later, during the reign of Rājaraṇja I. In between a regular and steady development seems to have occurred from the 1-A-1 type via the 1-8-1 to the 1-B-3 shrines. The years A.D.885, 910, 970 and 1000 are represented by lines drawn in Fig. 34, (p.155), indicate the year of transition from type 1-A-1 to 1-B-1, from 1-8-1 to 1-B-3 and from 1-B-3 to the 1-C-3 which all forms were allowed. The monuments supposed to have been built between A.D.910-70 were discussed in the previous paragraphs, dealing with the pañjara vimānas and with temples built during the pañjara phase. The temple at Melakkadambūr belongs to the 1-8-1 category, while some minor shrines represent the 1-A-1 type. In the next paragraph we shall discuss the koyils which were built before A.D. 910 or after A.D.970.

Chronology of the temples within the uniform regions of the delta.

In appendix 7 the characteristics of the complete temple layout of the Sapta Sthānas are given (nos. 1-7). It is remarkable that each of the three most important vimānas in this group (nos. 1-3) represents one of the three theories which we established for the ardhamandapa and its connection with the main shrine. This confirms our opinion that the extraordinary variation within such a small area and within such a limited group indicates the first phase in a process of development (pp. 94, 103). Since the other four shrines (nos. 4-7) either have one niche in each wall of their ardhamandapas or show a bare wall, we can conclude that the builders of the Sapta Sthānas dropped the idea of apertures in the three niches in each wall of the vimāna, but could not yet make up their minds whether to select an A-0 or an A-1 layout. Since both types were adopted in the shrines in the surrounding area (nos. 8-14) we cannot use it as a criterion to refine the proposed chronology of these monuments.

The layouts of the monuments at Śrīnivāsanallūr (no. 10) and Lalgudi (no. 11) could be interpreted as further experiments with new forms. In both cases the ardhamandapa could be called a mukhamandapa, since the recess connecting the vimāna to its porch is the wall of a real corridor. As such they are an illustration of the thesis that in the last quarter of the 9th century there was no single type and that all possible combinations were tried out. We can, however, point out that the first and last monument of those built according to our criteria in this period, show the same experimenting. It concerns the ardhamandapas of the koyils at Tiruppalanam and Puḷḷamaṅgai.⁵⁵ Both buildings have an extension near their entrance (p. 124). It seems as if the sthāpatis wanted to try out which solution was the most satisfactory: either an extra room in front of the vimāna (Śrīnivāsanallūr and Lalgudi) or in front of the ardhamandapa (Tiruppalanam and Puḷḷamaṅgai), a question which seems to have been settled in favour of the former solution and resulted in the first rudimentary B-scheme which was adopted in a more perfect form in the shrines at Tiruppurambyam and Tiruvādūtūrai (appendix 10, nos. 1-2).

In appendix 10 all temples in the delta belonging to the I-2-a category are listed. The most common combination is that with a I-2-a vimāna layout. This conception seems to have been applied throughout the greater part of the 10th century, i.e. between A.D. 925-985. However, this assumption is only correct, if the II-3-b vimāna at Tiruppurambyam (no. 1) was built either before or the I-1-a monument at Puṇḍjai (no. 10) after A.D. 985. The inscriptional evidence concerning these two shrines does not contradict our point of view (pp. 122-23, 145-47). The interest shown by well-to-do villagers coinciding more or less with Śembyan Mahādevī's activities around A.D. 970, is confirmed by yet another koyil, viz. that at Tiruviḷakkudi (p. 125, appendix 10, no. 5). At present it is a dvitala, but in view of its steepness, the modern brick structure is obviously a replacement of a stone ekatala śikhara. The niches in the walls of the ardhamandapa are — except for the central one — cut out. So, the original design must have been I-2-a/1-B-1. One quarter of the expenses were financed by the merchant guilds of the village. The rest was paid from small private contributions throughout the reign of Sundara Coḷa (A.D. 956-973).

All six monuments belonging to the I-2-a/1-B-1 group, including that at Tiruviḷakkudi, are dated between A.D. 925-985, whatever their exact dates may be (appendix 10, nos. 2, 3, 5-7, 9). It seems unlikely that such a preference for this type would be overruled in favour of an entirely different kind of koyil. Therefore, we still insist on our datings of the monuments at Tiruppurambyam and Puṇḍjai, all the more so as the latter can be dated even more accurately.

shown in the following discussion.

Table 11 gives, among others, the location of all temples with a 1-B-3

Balasubrahmanyam and Barrett agreed that they were built in or after 969 and before A.D. 986 (except no. 5). These shrines resemble each other to

such an extent that they are usually considered to form a group. However, they

show basic differences in the structural framework can occur within a

group of temples without having some consequences as to their internal

structure. Now, one of our hypotheses was (pp. 16, 18) that the height of a

temple usually bespeaks the skill of the architects and/or the financial means

of the patron. Translating this hypothesis into a real situation we assume

that the period between A.D. 969-985 can be subdivided into at least two phases,

the first period in which exclusively ekatalas were built and a second with

dvitalas. Inscriptional evidence to support this point of view

exists for the contents of the records on the walls of the dvitalas

exclusive, as we shall see. The information on ekatalas is flexible in

that we can only infer that the temples existed already in the year

mentioned in their records. In the absence of inscriptional evidence, the struc-

ture of a shrine should, therefore, in all cases be taken as guide-line.

Temples built during the reign of Uttama Coḷa: A.D. 969-985.

The first group consists of eight ekatalas (nos. 1-8 in Fig. 35 and appen-

dix 1), the second group of six dvitalas (nos. 9-14 in Fig. 35 and appendix

2). These at Kūhūr and Ānangūr having only one niche in each vimāna wall,

the shrines at Tiruvīḍaimarudūr and Śembyan Mahādevī have three deva-

niches in their vimāna walls. The monuments at Tirukkodikkaval and Vriddhā-

chalam should be considered transitional: they have the simple vimāna layout

common with the first group, their number of talas with the second. Although

the present building at Tirukkodikkaval has only one tala, we believe that it

originally was a dvitala. The new śikhara is made of brick and — what is parti-

cularly strange — has karnakūṭṭas on the four corners of the grīvā-platform,

the later architect wanted to maintain something of its previous dvitala

character. Geographically Vriddhāchalam does not belong to the delta, but from

records on its Śiva koyil it appears that the temple was built under the

reign of Śembyan Mahādevī and it can, therefore, be considered a product of

the workshop.

What evidence do we have to prove that the dvitalas in the delta are

older than the ekatalas and that the oldest of all is the monument at Kōnēri-

gūram of ca. A.D. 969? Among the inscriptions on ekatalas there is one

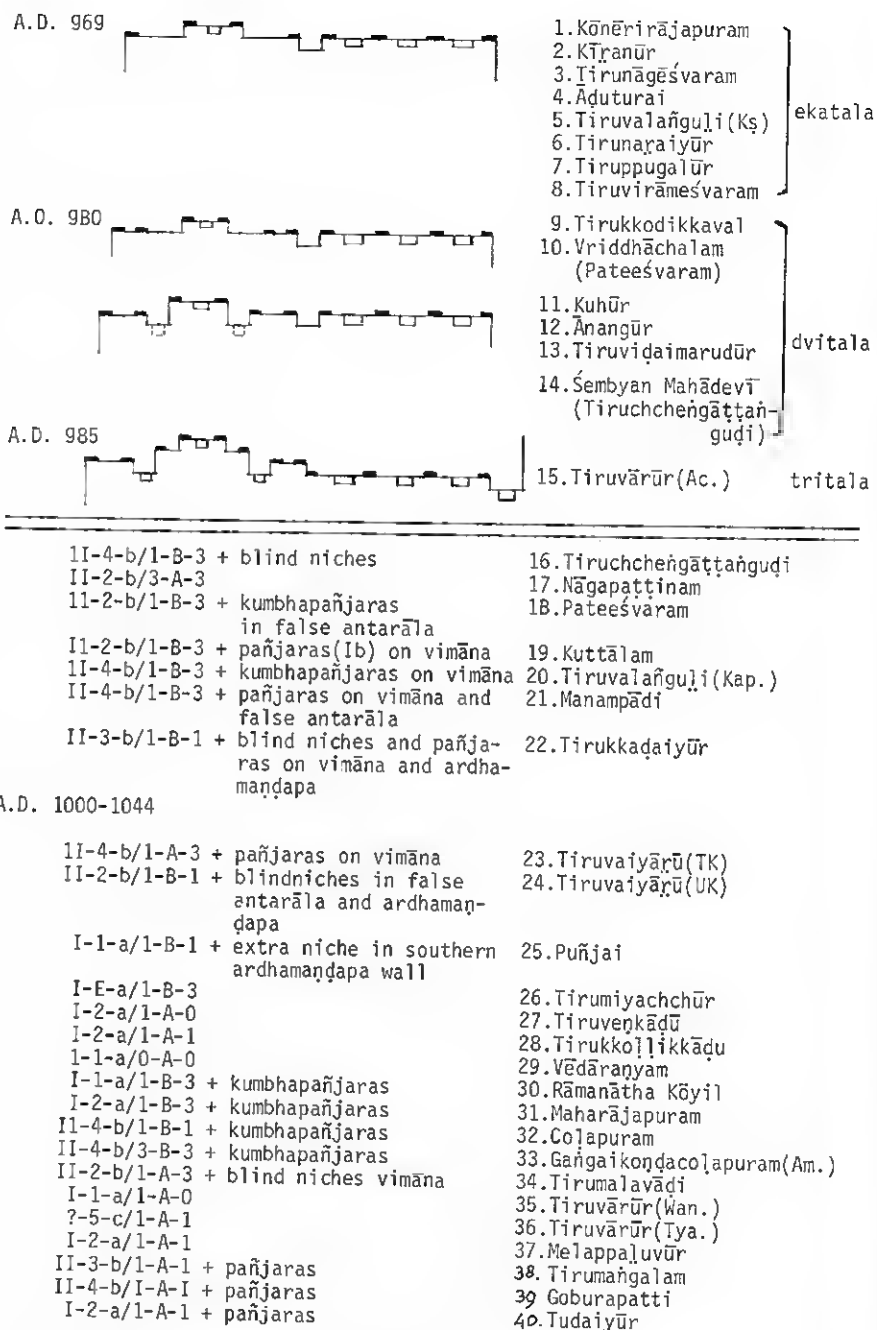


Fig. 35 Main characteristics of monuments built in the delta between ca. A.D. 969-1000 and between ca. A.D. 1000-1044.

at Tirājavuram from which some information can be deduced. Dated in A.D. 972, it mentions that the king was "informed" that Śembyan Mahādevī built this temple. It includes a reference to a donation — in order to maintain a flower-garden — in the 3rd regnal year of her son Uttama Coḷa, i.e. the year A.D.972. From this record we learn two things. In the first place, that it was not usual to engrave the information concerning important gifts only years later on the wall of a shrine and secondly, that the addition "who built this temple" is comparable to the more common information about gifts such as "gold in order to light a lamp" and seems to have been considered equally important. These inscriptions were often recorded much later and were not intended to inform posterity about the exact year of construction of the shrine. Since the engraving of inscriptions had to be carried out by a qualified mason, the villagers would have had to wait for the arrival of such a person, which explains the long time between the actual year of the gift and that of the record. We, therefore, agree with Barrett who suggested that the building in question was probably completed between A.D.969-972. We are convinced that Śembyan Mahādevī, entirely on her own initiative, began to renovate temples which were in a dilapidated condition — though at first in a modest way.

The dvitala at Kuhūr would seem to contradict this statement (no. 11). It is considered an inscription dating from A.D.970 as the oldest on this temple. There are, however, other records of the days of Rājārāja I referring to renovations made in the regnal years 7, 8 and 9 of a Parakesari. Nobody knows what king is meant with by this epithet. So, the only conclusion can be that the Koyil was renovated and that the old inscriptions were re-engraved on the new building, eventually including that of the 2nd year of Uttama Coḷa (A.D. 972). However, even if we were to eliminate the shrine at Kuhūr on apparently the same grounds, then another dvitala seems to invalidate our statement, viz. the large and complex II-4-b koyil at Tiruviḍaimarudūr (no.13). Although the present building was recently renovated, we know that the original temple carried a record dated in the 4th regnal year of a Parakesari which is generally attributed to Uttama Coḷa. Its contents are curious, for it reports the opening of the cellars in which the inscribed stones of an older shrine were stored in order to re-engrave them on the new walls. The epithet Parakesari is supposed to refer to Uttama Coḷa and, consequently, the temple is attributed to the year 1013. However, this should not be accepted unquestioned, for Rājendra I also used the same epithet. Apart from the fact that many records issued in the name of a Parakesari have been attributed to Uttama Coḷa without further arguments,

we are confronted with the unusual phenomenon that there are hardly records from the days of Rājendra I, embracing a period of almost half a century. I believe that many of the unidentified Parakesari records are wrongly attributed to Uttama Coḷa or even Parāntaka I and that in the case of the record at Tiruviḍaimarudūr we are dealing with such an inscription of the days of Rājendra I. We base our belief on the fact that the new temple, referred to in the record of the year 4, was a replacement of a brick structure. The inscribed stones could, therefore, never have been part of the walls of the original shrine. At best, they were blocks with which the old base was constructed. They were probably stored already for some time. This implies that the copying was not necessarily started immediately after the completion of the new koyil. In fact, one can well imagine that the heavy, old stones had meanwhile been forgotten. The decision to bring them back to light could have been caused by the wish to use the cellars for storing valuables. It is known, for example, that especially Rājarāja I and his family donated many pieces of jewellery to the deities which were brought out during processions. An underground cellar would, therefore, be more suitable for the storage of such priceless treasures which were only occasionally displayed, than for granite slabs bearing inscriptions.

Knowing that these extravagant gifts are typical of the days of Rājendrarāja — and probably also of those of later rulers, although inscriptions of identified kings are absent to prove this assumption — the epithet Parakesari may then well refer to Rājendra I, the first Parakesari after Rājarāja I, the Rājakesari. Consequently, the 4th regnal year should be interpreted as 1018, thus eliminating the possibility that the shrine in question was constructed in A.D. 973. In view of the absence of other inscriptional evidence we are inclined to date the original koyil at Tiruviḍaimarudūr ca. A.D. 1018, viz. after the last ekatala of the first group was completed.

On the walls of the dvitala at Ānangūr (no. 12) is an undated record mentioning Śembyan Mahādevī as the builder of this koyil. A second inscription records a gift in the 10th regnal year of a Parakesari who, according to the text, is almost certainly Uttama Coḷa though this cannot be inferred from the contents of this inscription.

Finally, the year A.D. 981, is the date at which the Kailāsanātha at Śembyan Mahādevī is supposed to have been completed (no. 14). Here again, records explicitly mentioning this memorable fact, are wanting. The first reliable information dates from A.D. 988 when a gift of Śembyan Mahādevī to this temple is related in extenso. All other inscriptions are Parakesari records which

merely assumed to refer to Uttama Coḷa.

Concluding the discussion of the dvitalas, it is clear that the contents of their inscriptions allow for a re-interpretation of their dates. Since the "transitional" dvitala at Tirukkodikkaval (no. 9) is firmly dated by a record of A.D. 980 and the other "transitional" dvitala at Vriddhāchalam (no. 10) can be attributed to A.D. 981, we are inclined to date all other dvitalas mentioned immediately after A.D. 980.

There are a few ekatalas which would seem to contradict our previous statement that all ekatalas were constructed before the dvitalas. It concerns the temples at Āḍuturai (no. 4), Tiruvalaṅguḷi (no. 5), Tirunaṟaiyūr (no. 6), Tiruvirāmeśvaram (no. 8) and possibly Tiruppugalūr (no. 7). According to us, inscriptions of this evidence was once more interpreted wrongly by either Barrett or Balasubrahmanyam or by both. To start with the temple at Āḍuturai: a record from A.D. 985 informs us that the shrine was built by Śembyan Mahādevī and that various grants were engraved on its walls. As we saw in the case of Kōṇēriyāpuram, one should not draw the conclusion that such an inscription is contemporary with the year of completion of the koyil. On the contrary, it merely indicates that the building existed already for a few years and that at some time all these memorable facts were engraved simultaneously.

The records on the temple at Tirunaṟaiyūr all are inconclusive. Many of them are incomplete or built in. It is not correct to take the year mentioned in one of the undamaged inscriptions of A.D. 986 as the probable date of construction, as Barrett did. It may well be possible that the records of which, among others, the dates are no longer recognizable, are older than the undamaged ones. So, merely on these grounds, his suggestion must be rejected, which means that the temple could well be older than A.D. 986.

None of the inscriptions used by Balasubrahmanyam proves that the shrines of Tiruvirāmeśvaram, Tiruvalaṅguḷi or Tiruppugalūr were built during the days of Rājārāja I. They only mention gifts.

Despite the briefness of this survey, we venture to propose that indeed eight ekatalas with a I-2-a/1-B-3 layout as well as the two simple dvitalas at Tirukkodikkaval and Vriddhāchalam were built before A.D. 980. Since the first activities of Śembyan Mahādevī became noticeable around A.D. 969, she must have commissioned an average of at least one temple every year. There is no reason why this speed should suddenly slacken off, so we may assume that within roughly four years a minimum of four more complex buildings were completed, i.e. between A.D. 981 and 985, the year in which Rājārāja I became king.

4.3.1.2. Temples built during the reign of Rājārāja I: A.D. 985-1014.

There are reasons to doubt whether this extremely successful monarch inspired his architects in the same way as he did his army. As mentioned in chapter 4 it is generally assumed that with his accession a new phase of Coḷa architecture started (p. 59). We accept this view, but want to point out that each monument constructed during his long reign is in fact not more than an assemblage of tried-out and well-known forms. In Fig. 35(p. 160) the nos. 15 and 16 represent the Śembyan Mahādevī style and were, therefore, built before Uttama Coḷa's death, as we shall see below (p. 167); the sequence of the monuments under nos. 17-27 shows an ever diminishing number of niches, while the entire layout becomes simultaneously less complex. The shrine at Tirukkoḷḷikkāḍu (no. 28) was renovated in the days of Kulottuṅga I or even later, as we shall point out in the next chapter. Not one form is new, though their combinations show a wide variety. Since these shrines do not bear dated inscriptions on their walls the sequence we propose relies entirely on a few assumptions. The most important of these is that the reduction of niches is a result of the appearance of mukhamāṇḍapas which became a permanent addition to the temples. This reduction seems to have been a gradual process in which the architects first tried to replace the superfluous niches by blind niches(BN), pañjaras(P) or even kumbhapañjaras(KP), but they finally realized that a straight forward wall with only one niche, in fact, the most satisfactory solution of all.

These large mukhamāṇḍapas were either the result of — among others — a shifting preference from stone to metal sculptures which had to be stored inside, or *vice versa* they inspired the artists to concentrate on the production of costly, metal images instead of stone figures. In either case niches on the outside of a building were no longer necessary.

Our second assumption is that, at a certain moment, the need for new temples was satisfied. This is not very unlikely after the hectic period of construction activities in the delta. For the sthāpatīs had indeed reached their geographical limits at Nāgapattinam and Śembyan Mahādevī with the completion of the dvitalas at these sites. From then onwards one may expect (re)construction activities to occur everywhere between Śrīnivāsanallūr in the western tracts of the Kāverī and Nāgapattinam on the coast. This implies, however, that we can no longer consider the geographical position of a monument in a particular distribution-pattern as a decisive factor with regard to its date. From now onwards we have to rely exclusively on inscriptional evidence — which is extremely meagre — and on the architectural features of the other koyils listed in appendix 11 and not yet discussed(cf. Table A, p. 90).

However, one problem remains: the Rājarājeśvara at Tañjāvūr, which according to an indisputable inscription on its base was consecrated ca. A.D. 1010, the king handed over the stūpī, or finial, which in itself must have been 8 metres high.⁵⁷⁾ The problem is obvious when comparing the measurements of an average vimāna with that of the Rājarājeśvara. The granite blocks to be cut and carved for one wall of an ordinary dvitala have to cover a surface of only 18-20 sq. metres; for one wall of the Rājarājeśvara stones for 450 sq. metres had to be provided. The total surface of the superstructure of a dvitala only excels 80 sq. metres; that of the spire at Tañjāvūr amounts to 2850 sq. metres excluding the innumerable kuṭīs, karṇakuṭīs, śālās, a comparable number of images in their niches and thirteen kapotas.⁵⁸⁾ In order to give the reader some idea we can say that the plain surface of the Rājarājeśvara is more than 25 times that of a village dvitala, while the granite blocks required for the entire temple complex exceeds roughly 50 times the quantity needed to raise a village temple.⁵⁸⁾ On the basis of an average production of one (and a half) small temple every year — which seems to have been the output of the workshop of Śembyan Mahādevī — it can be said, theoretically, have taken almost half a century to build the monument at Tañjāvūr. Since Rājarāja I ruled for 30 years, it can safely be assumed that the building was completed within this period. Consequently, the artisans of Śembyan Mahādevī's workshop had to double their efforts somehow — to put it euphemistically. This means that they succeeded in training unexperienced men, turning them into highly qualified craftsmen.

Of course, laborers extracted by force from the conquered territories could have solved at least part of the problem, i.e. they could have been employed as stone cutters in the granite quarries. But even a good stone cutter is not a substitute for a talented, family-trained sculptor. Unfortunately, that is exactly what the stone cutters of South Indian temples had to be. For, every granite stone is carved *in situ* into a shape fitting into the total sculptural clearance of a building. This is clearly demonstrated, among others, in our illustrations (cf. Pls. 38b, 38c, 45b, 71b and 73). In view of all this we believe that the construction of this stupendous shrine in honour of Śiva took about 50 years and was mainly the work of the, admittedly, enlarged atelier of Śembyan Mahādevī which was supplied with granite blocks prepared by forced labour in the quarries some 50 kms away.⁵⁹⁾

The implication is either that the building activities on the village level came to a complete standstill or that most of the skilled craftsmen were called to Tañjāvūr in order to raise the Rājarājeśvara, thus leaving the construction of village koṭils to the less trained artisans. However, the first course of action is not very likely, for the existing, dilapidated brick shrines could

meanwhile collapse and would have to be reconstructed. So, we believe that in cases of emergency one of the assistant architects was temporarily sent to the countryside in order to help with the renovation of a village koyil.

The question remains, though, in which year the artists were called to the capital. In view of the technical and logistical problems which had to be solved first with regard to the construction of a granite *sādhāra* of that size, it is not likely that this happened already in the first years of Rājarāja's reign. Taking into consideration the time necessary for organizing the required manpower from the conquered territories⁶⁰), for levelling the building site and raising the six metres high platform on which the *vimāna* and the two *maṇḍapa* in front stand, we can allow about five years to have passed before the trained craftsmen could start on the rough shaping of the rounded *kumuda* and the *vyāli* friezes. Once Śembyan Mahādevī's chief architect(s) — after having finished the *tritāla* at Tiruvārūr (no. 15) — had been called to the capital at an early date (ca. A.D. 985), the task of restoring or rebuilding shrines which meanwhile collapsed, was transferred to assistant architects.

Although we are unable to judge whether the authority of one chief architect is the main reason why all temples of Śembyan Mahādevī's age resemble each other, we venture to propose that the absence of such an influential person freed his assistants from his dominant style, thus creating room for a playful way of combining known components into a new concept. This could explain why the monuments which according to us were built between A.D. 985-1014, are all different. However, if we are right in believing that building activities in the delta went on for another five years before the actual construction of the Rājarājeśvara started, then these monuments must fall into two categories, viz. those which were built between A.D. 985-990 and those belonging to the years A.D. 990-1014.

The number of shrines raised in these two periods is about the same. The first group should show a closer affinity with the style of Śembyan Mahādevī. Moreover, they will resemble each other in certain respects because they were designed within a short period. The other temples would probably demonstrate or no uniformity for they were constructed over a relatively long period at many years after the last product of the workshop under Śembyan Mahādevī was finished (cf. Pls. 62-64).

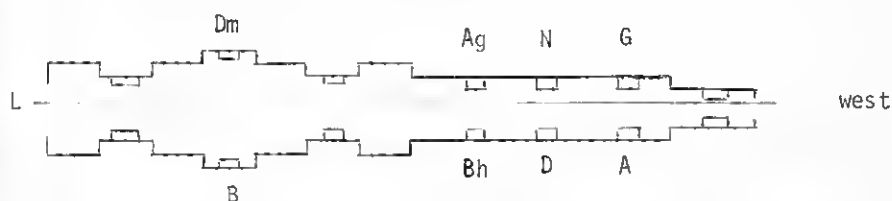
The supposedly slow speed with which village shrines were raised, was continued far into the 11th century, for during the 32 years of Rājendra's long reign only eight koyils were commissioned in and around the delta.⁶¹)

Although we realize that we have only superficially touched the problem of building history of the Rājarājeśvara and its implications for the architecture in the delta, we nevertheless reject the idea that this gigantic shrine was raised in six years as Balasubrahmanyam believed when he deducted the year of the earliest recorded gift to this koyil (A.D. 1004) from the year in which the śūpī was handed over (A.D. 1010) ⁶² The main body of the building could have been ready, but the sculptural details were definitely not as the many blocked-out shapes on the walls and pilasters show. In our opinion this is that the sculptors worked on this temple till the king's death in 1014.

We shall now discuss the monuments which were supposed to be constructed between A.D. 985-1014 (appendix 11, nos. 15-27) as well as their inscriptions in order to demonstrate that the contents of these records allow for an earlier or a more accurate dating than suggested by Balasubrahmanyam.

The Acaleśvara at Tiruvārūr.

Acaleśvara is the first — and last — true tritala ever designed by the Early Is. ⁶³ The building has the following layout:



The III-5-c/3-A-3 monument is exceptional in four other respects: the ground-plan of the vimāna is an exact copy of the remarkable layout of the shrine at Truppalanam, the oldest of the Sapta Sthānas (Pl. 23); the absence of an antarāla is strange in view of the number of niches in the ardhamāṇḍapa; the presence of a real antarāla in front of the ardhamāṇḍapa is a new innovation which, moreover, has one niche in each wall and finally, the large number of niches in the walls of its vimāna is confusing for the number of nine niches in these walls was not caused by a sudden increase in representations or manifestations of Śiva in stone, since the six additional sculptures are only attendant deities or ṛṣis. This indicates that the enlargement of the normal (2, 3 or 4)-b vimāna into a III-5-c sanctum was not the result of a standard extension of accepted iconographic forms. It is, therefore, not surprising that this large number of niches was repeated only once, viz. at Nāgapaṭ-

ṭinam, a town not far from Tiruvārūr. In all other cases the sthāpatis refer to the old dvitala or even ekatala type.

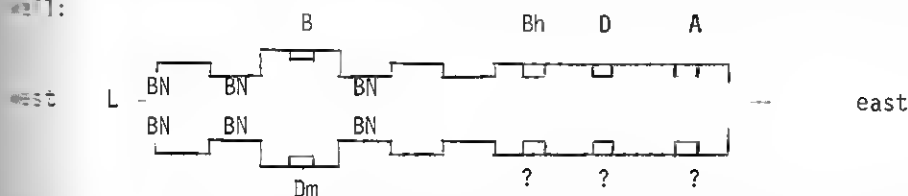
The iconographical arrangement of the niches from west via north to east is as follows: Ardhanārī(A), Durgā(D), Bhikṣāṭana(Bh), Brahmā(B), Liṅgodbhā (L), Dakṣiṇāmūrti(Dm), Agastya(Ag), Naṭarāja(N) and Gaṇeśa(G). The southern in the antarāla is empty, its counterpart on the northern wall is built in the mukhamāṇḍapa. This was the normal iconographical layout of the temples raised in the previous fifteen years. As we shall see shortly this fixed set of figures was no longer prescribed after A.D. 985/90. We believe that the arrangement of the deities became a matter of free choice during the construction of the sky-high proclamation of Rājārāja's power. For, a new iconographical layout had to be invented *ad hoc* for the great shrine at Tañjāvūr, due to the unusually large number of niches in each wall. As for the date of the Acalesvara there is a record dated in A.D. 987 mentioning a gift of silver vessels by Śembyan Mahādevī for the merit of her son Uttama Coḷa. In another record dated 992 we are informed that she built this koyil of stone and that, among other she presented 234 kasu(p. 34, note 12) for repairs and for structural additions to the temple. A record on the west wall of the maṇḍapa dates from the 32nd regnal year of Parāntaka I but it is engraved in characters of a later age. From this information we can conclude that the original temple must have been a structure which existed already in the days of Parāntaka I and which was reconstructed in stone by Śembyan Mahādevī. In the second place, it is clear that the reconstruction must have taken place from the ground-level, for the record of Parāntaka I was probably engraved on the old, stone base and was subsequently copied on the walls of the maṇḍapa. Had the original base been maintained — and with it the original layout — then we would have found the inscription there. Since this is not the case we may safely assume that the layout of this shrine is new and that the absence of a false antarāla is not due to the presence of an old base. In the third place, the reference to Śembyan Mahādevī as the builder of this koyil, should be interpreted as a casual information, for, after she had financed this shrine some years earlier we are now told that she paid for the necessary repairs and additional maṇḍapa(s). Since Śembyan Mahādevī already donated some precious gifts in A.D. 987 (a record in which information with regard to architectural aspects is absent) it is likely that the tritala at Tiruvārūr existed already in A.D. 987. In view of the architectural developments in the delta during the last three decades of the 10th century, we can conclude that the temple was built ca. A.D. 985.

There are three further arguments which seem to support this statement.

The first place, the Acalesvara at Tiruvārūr is the tallest monument ever commissioned by Śembyan Mahādevī. Starting with only ekatalas, she proceeded to raise dvitalas and, finally, just before Rājarāja I moved "her" army of artisans, she built a tritala. (This obvious trend in South Indian architecture of the 10th century was continued under Rājarāja I when he ordered "his" sāndhāra to be thirteen storeys high). In the second place, the strict iconographical layout at Tiruvārūr is in accordance with the customs of those days, i.e. the reign of Rama Coḷa. In the third place, the fact that this period ends with yet another contribution to Early Coḷa architecture, viz. the antarāla, after the successful introduction of the 1-B-3 type some fifteen years earlier, seems in line with the originality displayed by Śembyan Mahādevī's workshop.

4. *The Gaṇapatīśvara in the Uttarapatīśvara at Tiruchcheṅgāṭṭaṅguḍi.*

Here again we are confronted with a building of which the central part of each vimāna wall juts out, while its ardhamāṇḍapa has severe, straight walls. Its layout II-4-b/1-B-3 is completed with two extra (blind) niches in each vimāna wall:



The iconographical arrangement is incomplete, for the niches in the southern ardhamāṇḍapa wall are all empty. The figures of Dakṣiṇāmūrti (Dm), Liṅgodbhava (L), Brahmā (B), Bhikṣāṭana (Bh), Durgā (D), and Ardhanārī (A) are standing in the niches usually reserved for them.⁶⁴⁾

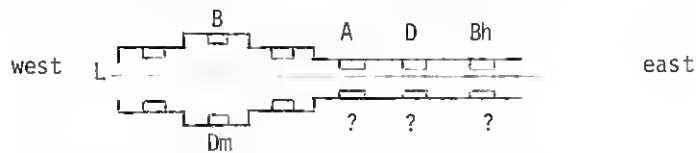
The layout of the Gaṇapatīśvara resembles that of the monument at Kuhūr (no. 11). On the other hand, the blind niches (BN) in the recesses remind us of the large II-4-b vimānas at Tiruviḍaimarudūr (no. 13) and Śembyan Mahādevī (no. 14), although these temples have worshippers or attendant deities in their lateral niches.⁶⁵⁾ However, it is obvious from Barrett's illustration that the sculptures at Śembyan Mahādevī are not well adjusted, for they almost tumble out of their niches. These are probably as shallow as the blind devakoṣṭhas of the Gaṇapatīśvara at Tiruchcheṅgāṭṭaṅguḍi. If so, both shrines are completely identical, implying that the Gaṇapatīśvara is not an aberration II-4-b/1-B-3BN, but an "ordinary" II-4-b/3-B-3 monument without surprising archaisms or new additional features as is the case with all shrines built during the reign of Rājarāja I. We, therefore, classify it as one of the latest koyils commissioned by

Śembyan Mahādevī implying that it was constructed just before A.D. 985.

This point of view is not contradicted by inscriptional evidence, for the earliest record dated A.D. 988 mentions merely a gift by some citizens. Since the next donation was mentioned sixteen years later in A.D. 1004, the shrine could well have been erected some years before A.D. 988.

17. *The Kārṇasvāmin temple at Nāgapattinam.*

This shrine has the following layout :



The lateral niches of this II-2-b/3-A-3 building contain worshippers or attendant deities. The remaining figures are Dakṣiṇāmūrti (Dm), Lingodbhava (L), Brahmā, Ardhanārī (A), Durgā (D) and Bhikṣāṭṭana (Bh). The other niches are empty.⁶⁶⁾

The earliest record dates from A.D. 1010 and mentions a gift of 20 kasas for food offerings to the deity. The second inscription (of Rājārāja I) was engraved in A.D. 1014 and refers to a gift of land for worship and offerings to the god by the residents of Nāgapattinam. The three subsequent records were issued in the reign of Rājendra I between A.D. 1015 and 1019 and refer to a gift of jewellery set with precious stones for the silver image of Nāgaiyalā, a donation of silver utensils, a gift of land made tax-free by some citizens, twice a gift of 87½ kalañjus of gold from China and once a gift of 60½ kalañjus for jewels, worship and food offerings to an image of Ardhanārī set up by the donor.

From these inscriptions it can be inferred that the shrine received special attention from merchants of the internationally important port of Nāgapattinam. None of the records mentions royal interference in the affairs of this temple. We are given the impression that important gifts were only occasionally recorded on the walls of this shrine. This implies that it could well have been in existence years before A.D. 1010, the date of the earliest inscription (of Rājārāja I). We may add that between A.D. 1019 and the reign of Rājadhiraṇja (A.D. 1052-1064), only two more records were engraved on this temple. They refer to the gift of an image of Adavallan and a grant for food offerings on every Sunday.

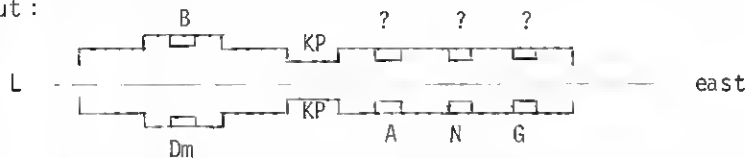
In view of this low average of one inscription recording a gift during

highly every twenty years in the middle of the 11th century, it is justified to accept a similar low rate of recording gifts to the Kārōṇasvāmin during the first 20 or 25 years of its existence (A.D. 985/90 - 1010). When dealing with the various kāl decorations in the next chapter we shall demonstrate that ca. 1010 is the most acceptable date for the construction of this monument.

The Sattivaṇeśvara at Pateśvaram.

Although there are no Early Coḷa inscriptions referring to this shrine, we shall try to substantiate our view that this relatively simple II-2-b/1-B-3 monument must belong to the small group of II-2-b vimānas built during the reign of Rājama Coḷa (nos. 9-10) in spite of one disturbing feature which may seem to contradict this attribution.

Its layout:



It does not provide an answer to the problem of its dating, nor does its height. There is, however, one peculiar, ornamental detail which deserves our attention, viz. the presence of a flat kumbhapañjara on the walls of the false antarāla.⁶⁷⁾ To stress the most unusual character of this phenomenon we may point out that in all other monuments listed in appendix 11, the walls of a false antarāla are either bare or decorated with a kind of niche which sometimes functions as a window frame. In this case the wall between the pilasters of the frame is pierced by one or more lozenge-shaped holes.

The way in which the various decorations of a false antarāla (type B) are distributed over the temples built between A.D. 969-1000 is given below:

type of vimāna	decoration of bare	decoration of window	false antarāla blind niche	(kumbha) pañjara
II-2-a	Kīṇanūr(2) Tirunāṅgeśvaram(3) Āḍuturai(4) Tiruvallaṅguḷi(5) Tirunagaiyūr(6)	Kōṇērirāḍḍapūram(1) Tiruvirāmeśvaram(8)	Tiruppugalūr(7)	Pateśvaram (18) ↓ (KP) ?
II-2-b	Tirukkodikkaval(9)	Vriḍdhāchalam(10)		↑
II-2-b	Anagūr(12) Tiruchengattaiyūdi(16)	Kuhūr(11) Tiruvīḍaimarudūr(13)	Śembyan Mahādevī(14)	
II-2-b	Tirukkadaiyūr(22) Puñjai(25)	Kuttālam(19) Tiruvallaṅguḷi(20)	Tiruvārūr(15) Tiruvallaṅguḷi(20) Tiruvaiyāṇi(24) Tirumiyachchūr(26)	Manampādi (P) (21)

Italics indicate that the temple at a particular site is characterized by a further feature, viz. the presence of a makaratorāṇa over each and every niche and blind niche. The monument at Tiruvārūr is included for it has blind niches in the walls of its antarāla, although the false antarāla (B) is not incorporated in the layout.

From this distribution the following facts become apparent:

1. During the first ten years of Uttama Coḷa's reign at least three designs of the false antarāla wall were applied while a full set of makaratorāṇas was alternatively selected for the walls of the ardhamāṇḍapas.
2. The two transitional monuments at Tirukkodikkaval (no. 9) and Vriddhāchalar (no. 10) each represent a different type of false antarāla, while they also differ with regard to the application of a full set of makaratorāṇas.
3. Three kinds of wall decoration were applied on the dvitalas built during the final years of Uttama Coḷa (nos. 11-14, 16); three koyils in this group possess the full set of makaratorāṇas, whereas the wall space above the lateral niches of the ardhamāṇḍapas of the other two monuments remained bare, as if the artists wanted to provide each member of the otherwise uniform groups with some individuality.
4. The temples supposed to belong to Rājarāja's reign are almost equally distributed over all types of ground-plan and the four types of wall decoration while almost all have the full set of makaratorāṇas.

Of course no full set can be expected in the 1-B-1 temple at Tirukkaḍaiyūr (no. 22) with only one niche in each wall. On the other hand, the Naltunai Īśvara at Puñjai (no. 25) can be included, for its southern ardhamāṇḍapa wall is decorated with makaratorāṇas above all niches. The peculiar shape of this ornament over the Agastya niche, where it is merely an arch (Pl. 60b), deserves our attention. Perhaps the sculptor wanted to stress the human character of the saint. Curiously, the architects of the Śrī Kapardīśvara at Tiruvalaṅguḷi (no. 20) did not select one but two different ways of decorating the false antarāla: on its northern wall we noticed a blind niche, on its southern wall a window frame embracing six lozenge-shaped holes.

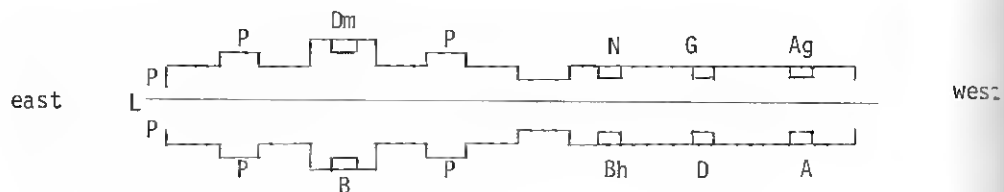
Whereas the pañjara on the walls of the false antarāla at Manampādi (no. 21) is merely a repetition of the same ornament in the recesses of its vimāna wall, the kumbhapañjara at Pateesvaram strikes us as a remarkable phenomenon. This kumbhapañjara is, however, not entirely unique, for it was also applied on the Śrī Kapardīśvara, albeit on the walls of its vimāna only. There, moreover, the kumbha, or flower-pot, is not flat as at Pateesvaram, but has the three-dimensional shape a pot should have. In view of the fact that the rounded kumbha

There is also a common element on the walls of the Rājarājeśvara at Tañjāvūr (II-2-b/1-B-3) and in the pañjaras(!) of the Viṣṇu koyil at Dadapuram dated A.D. 1006 (II-2-b/1-B-3), we are inclined to believe that this new ornament was tried out for the first time at Pateesvaram. The idea could have come directly from the drawing-table of the sthāpatis who were commissioned to design the Rājarājeśvara, despite the unrealistic, two-dimensional appearance of the kumbha at Pateesvaram. Although this statement seems as unrealistic as the flat kumbha itself, we may point out that the building of a stone colossus of more than 60 metres high—standing on a platform measuring 30.18 sq. metres—constructed with stones which had to be transported over more than 50 kms and inaugurated on the 275th day of the 25th regnal year of the king (A.D. 1010), must have existed on paper long earlier. These drawings—characterized, among others, by many novel ideas such as new forms of Śiva, kumbhapañjaras in each recess and makaratorṇas over every niche—could, in the mean time, have inspired the sthāpatis of the temple built during the five years in which the logistical and technical problems inherent in the design and subsequent construction of such an stupendous monument had to be solved.

In view of all this the monument at Pateesvaram with its severe II-2-b/1-B-3 layout, but with futuristic, though flat kumbhapañjaras, could be dated after the completion of Śembyan Mahādevī's shrine at Tiruvārūr, i.e. ca. A.D. 990. Nevertheless, its pilaster decoration—an aspect which will be discussed in the next chapter—associates the temple with the earlier products of Śembyan Mahādevī's atelier. The flat version of the kumbha might then be considered the first, though unsuccessful experiment which at that time did not yet find favour and was, therefore, not repeated. The manifest wish of Śembyan Mahādevī's sthāpatis to use alternatives when decorating the walls of a false antaśritha may explain why this attractive ornament was selected in the first place. The earlier disinclination of the artist to incorporate the kumbhapañjara on the Uttama Coḷa buildings then evaporated when confronted with the problem of how to decorate the immense number of recesses on the walls of the Rājarājeśvara. So, they probably reverted to the old concept while adapting it slightly, thus creating the rounded kumbhapañjara.

The Uktavedeśvara at Kuttālam.

The temple has the II-2-b/1-B-3 layout and can be compared with that at Tiruvādūr (II-2-b/1-B-3).⁶⁸ The difference is that at Kuttālam there are two extra pilasters to enhance the second tala, while the pañjaras remain under the kapota of the vi-



māna and are absent on the walls of the ardhamaṇḍapa, whereas at Tiruvādūtūr the proud Ia type was applied on all the walls(pp. 123-24).

Starting, clockwise, from the entrance on the west, the iconographical layout is Ardhanārī(A), Durgā(D), Bhikṣāṭana(Bh), Brahmā(B), Liṅgodbhava(L), Deśiṇāmūrti(Dm), Naṭarāja(N), Gaṇeśa(G) and Agastya(Ag). The only available inscription dated A.D. 992, tells us that this temple was built by Śembyan Mahādevī. From its wording we can infer that it is a summary of Śembyan Mahādevī donations to this shrine. They concern "gifts of land for offerings, worship, music and for maintaining 25 brahmins..." Balasubrahmanyam believed that this (II-2-b) monument dates from the reign of Uttama Coḷa and resembles the (I-2-a) koyil at Kōṇērīrājapuram.⁶⁹ This supposed resemblance probably induced Balasubrahmanyam to date the temple at Kuttālam between A.D. 969-985. However, the two koyils are not really comparable, for they differ in height and in ground-plan due to the application of pañjaras. Consequently, the Uktavedeśvara at Kuttālam cannot be dated in the reign of Uttama Coḷa. The re-appearance of pañjaras on the walls of this shrine could be explained by the wish of its architect to provide it with the royal appearance of a vimāna with nine niches as at Tiruviṇḍaimarudūr, Śembyan Mahādevī, Tiruchcheṅgāṭṭaṅguḍi, Tiruvārūr and Nāgaṭṭinam (appendix 11, nos. 13-17) by replacing the rather unusual attendant deity or ṛṣis by pañjaras — a process of which we observed the final phase a century earlier at Puḷḷamaṅgai(p. 114). For the second time the Early Coḷas seem to have rejected the concept of three niches in the wall of a vimāna in favour of pañjaras. Since the iconographical layout in which Naṭarāja, Gaṇeśa and Agastya are represented in the southern wall of the ardhamaṇḍapa, seems to relate the monument closely to the other koyils built by Śembyan Mahādevī, as we shall see further on (pp. 178-80), the Uktavedeśvara can be dated ca. A.D. 986.

20. The Śrī Kapardīśvara at Tiruvālāṅguḷi (Pls. 63c-d).

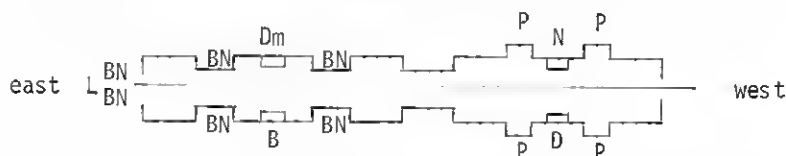
This monument strikes us as a highly original building(p. 175). In the first place, the Agastya figure is absent; in the second place, the ground-plan of its ardhamaṇḍapa is new — at least in combination with a B layout; thirdly,

Its iconographical layout is similar to that of the previously discussed shrines which means that the Agastya figure is absent. Starting clockwise, from the entrance we meet Bhikṣāṭana(Bh), Naṭarāja(N), Gaṇeśa(G), Dakṣiṇāmūrti(Dm), godbhava(L), Brahmā(B), Ardhanaṛī(A), Durgā(D) and Gaṅgādhara(Gd).

The oldest inscription dates from A.D. 1016 which is the 4th regnal year of Rājendra I. It deals with a gift to the flower garden by a donor whose name is not mentioned. Due to the absence of records before and after this year we cannot establish the date of this temple with certainty. Considering its structural and iconographical affinity with the Śrī Kapardīśvara at Tiruvāngūli and its dissimilarity with all other shrines listed under nos. 22-37 in appendix 11, we propose a date between A.D. 98B-990.

22. *The Amṛtaghaṭeśvara at Tirukkāḍaiyūr* (Pls. 63a-b).

This II-3-b/1-B-1(BN) monument has the following, unique ground-plan.



According to our list it is the first deviation from the dominant type of śaḍpas with three niches, be it in the A or B layout. This implies that a decision had to be taken as to which deity had to be placed in the one and only niche of the two ardhamandapa walls. Since the choice fell on Naṭarāja and on Gaṇeśa the temple was probably built during Rājārāja's reign and not in the days of Śembyan Mahādevī, when the elephant god was always present.

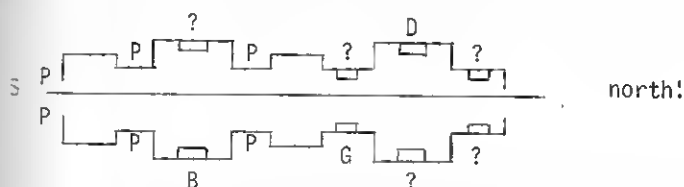
According to the inscriptions dating from the 24th and 36th regnal year of Rājendra I, the shrine was called after its donor Kalakala who is also mentioned in a record of A.D. 99B in which it is stipulated that he should pay a fixed quantity of paddy to the temple every year for the expenses of worship and for maintaining three lamps before certain images out of the proceeds of land he purchased from the temple. In view of this Balasubrahmanyam believes that the shrine was built by this person. This seems a good suggestion as it would explain why the ardhamandapa walls have only one niche instead of three (cf. pp.139-40).

We shall try to adduce further arguments to justify our opinion that a temple with one niche in each ardhamandapa wall could date from the end of the 10th century. The koyil at Tirukkāḍaiyūr closely resembles that at Kuttālā (no. 19) which was built by Śembyan Mahādevī. The Ia pañjaras on the ardhamandapa

the walls of the former are placed in the same curious way as the Ib pañjaras of the vimāna walls of the latter, viz. they both jut out. In fact, one could say that the pañjaras on the vimāna walls at Kuttālam are replaced by blind niches at Tirukkadaiyūr and the lateral niches of the ardhamandapa walls at Kuttālam by pañjaras at Tirukkadaiyūr. Moreover, both buildings show the same refinement in the decorative details of the pilasters and other wall ornaments.⁷⁰ We are, therefore, inclined to believe that these two shrines were constructed by one and the same architect, the larger one at Kuttālam financed by a queen, the smaller temple by a wealthy merchant from Tirukkadaiyūr possibly having his business at Nāgapaṭṭinam, the neighbouring port. Being "citizen koyil" the shrine at Tirukkadaiyūr can be compared with the group of monuments we encountered at Gōvīndaputtūr, Gandaradittam and Tirukkuhukavūr (pp. 139-40), all of the same I-B-1 class. Since its II-3-b vimāna deviates from the ground-plans applied during the Śembyan Mahādevī phase and represents a type unknown among the monuments built by commoners at the three villages just mentioned, we propose to date this koyil after the completion of the temple at Kuttālam, i.e. between A.D. 986-90.

The Ten Kailāsa at Tiruvaṛṇai (Pl. 47).

The II-4-b/1-A-3 building has the following lay-out:



This curious monument of which the central part of the ardhamandapa once again juts out although connected directly with the vimāna, carries two stunning inscriptions from which no date can be inferred. One merely mentions the full regnal title and name of Rājendra I as given in his copper-plates without further comment or information. The other records in detail the various ornaments donated to this temple without referring to any particular years.

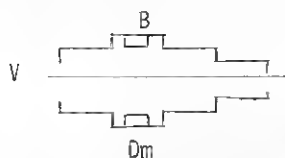
In contrast to the inscriptions, the remaining sculptures provide interesting information, for one of them represents Subrahmaṇya(S) who, so far, was never incorporated in the iconographical arrangement. Combining this fact with the old-fashioned A layout we are reminded of three other monuments located along the northern bank of the undivided Kāverī. At Tudaiyūr(pp.130-31 and

Pls. 45a-b, showing a 1-2-a/1-A-1 building), the niche normally containing Gaṇeśa gives shelter to Sarasvatī, Dakṣiṇāmūrti — usually seated — is replaced by a standing Vīṇādhara Dakṣiṇāmūrti and in the western niche of the vimāna builder placed a sculpture of Ālīṅgamūrti.⁷¹) At Goburapatti (pp. 134-35 and Pl. 49 showing a 11-4-b/1-A-1 construction) Liṅgodbhava and Durgā were replaced by Harihara and Sarasvatī respectively. All these deities as well as many others are represented on the walls of the Rājarājeśvara at Tañjāvūr. Earlier on, we suggested that the artists of this gigantic kōyil set the trend for the dramatic changes in the iconographical layout. For the first time they depicted various manifestations of Śiva in sculpture. In addition they must have unhinged the fixed iconographical arrangement due to the mere fact that the double row of five niches in the ten metres high vimāna walls could not be repeated on ordinary ekatala or dvitala (cf. Pl. 73).

As the sculptors of the village kōyils built towards the end of the 10th century obviously felt at liberty to select any image to their liking, we can expect this freedom visualized especially in those shrines where the artist had to make a choice because the ardhamandapa had only one niche. If we are right then temples which, according to us, were raised in the last decade of the 10th century or later with either a 1-A-1(3) or a 1-B-1(3) layout should show different deities in at least one niche of their ardhamandapa walls. We have listed these buildings below:

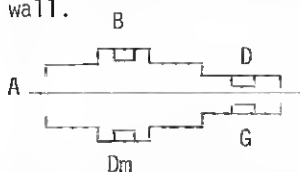
Name of village	a r d h a m a ṇ ḍ a p a	
	deity in central niche	deities in other niches
Tudaiyūr (app.8, no.8)	Sarasvatī	Vīṇādhara Dakṣiṇāmūrti, Ālīṅgamūrti;
Goburapatti (app.8, no.13)	Sarasvatī	Harihara;
Tirumaṅgalam (app.8, no.14)	Bhikṣāṭana	Viṣṇu;
Puñjai (app.9, no.27)	Gaṇeśa, Agastya	-
Uyyakkōṇḍān Tirumalai (app.9, no.29)	Bhikṣāṭana	Ardhanārī;
Tiruvaiyārū (UK) (app.10, no.8)	Naṭarāja	?
Tirumiyachchūr (app.11, no.26)	Gaṇeśa	Gaṅgāvisarjanamūrti, Ālīṅgamūrti, Rṣabhāntika;
Tiruvaiyārū (TK) (app.8, no.10)	?	Subrahmaṇya (vimāna);
Rāmanātha Kōyil (app.11, no.30)	?	Caṇdeśvara, Bhairava, Candīśekhara;
Gaṅgaikōṇḍacoḷapuram Amman shrine (app.11, no. 33)	Naṭarāja	Subrahmaṇya, Bhairava, Gaṅgā-Prasāda;

The significance of this list will become evident when columns 2 and 3 are viewed with the traditional sets of figures. Although there was no regular, geographical layout during the first years of Āditya I (appendix 7, p. 378) it is generally assumed that the Trimūrti had to be represented as follows:



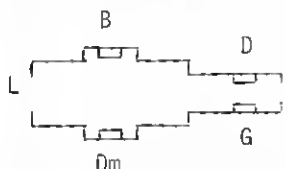
<u>Brahma</u>
<u>Viṣṇu</u>
<u>Dakṣiṇāmūrti</u>

During the reign of Āditya I Viṣṇu was substituted by Ardhanārī, for Durgā a niche was made in the northern ardhamandapa wall, while Gaṇeśa was placed in the southern wall.



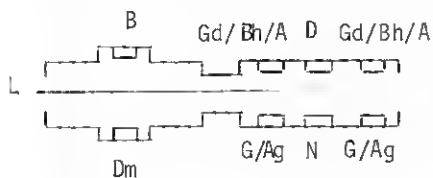
<u>Brahmā</u>	<u>Durgā</u>
<u>Ardhanārī</u>	
<u>Dakṣiṇāmūrti</u>	<u>Gaṇeśa</u>

This set of figures remained unchanged till the days of Parāntaka I, except for the replacement of Ardhanārī by Liṅgodbhava.



<u>Brahmā</u>	<u>Durgā</u>
<u>Liṅgodbhava</u>	
<u>Dakṣiṇāmūrti</u>	<u>Gaṇeśa</u>

From the incidental occurrence of Agastya in the second extra niche of the southern ardhamandapa wall at Tiruvādūturai (pp.125-26), this set of figures remained popular throughout the Śambyan Mahādevī phase. These five deities are the core to which during the next twenty years four more figures were added. First of all Naṭarāja appeared pushing Gaṇeśa literally aside, either to the right or to the left. On the northern ardhamandapa walls either Bhikṣāṭana (Bh) Gaṅgādhara (Gd) or Ardhanārī (A) were added on either side of Durgā.



<u>Brahmā</u>	<u>Gaṅgādhara, Bhikṣāṭana, Ardhanārī and Durgā</u>
<u>Liṅgodbhava</u>	
<u>Dakṣiṇāmūrti</u>	<u>Gaṇeśa, Agastya and Naṭarāja</u>

These additions seem to indicate that at the beginning of Uttama Coḷa's reign in ca. A.D. 969 the introduction of only one new representation of Śiva did not satisfy the presumably increasing interest in this deity. This probably

applies to all temples listed under nos. 1-19 in appendix 11, although the figures in nos. 5, 10 and 13 are incomplete. In the shrine at Tiruvalāṅḡ (no.20) and Manampādi (no. 21) Agastya is replaced by Bhikṣāṭana, but no new — till then unknown — sculptures were inserted in any of the other niches.

From this survey we learn that during the reign of each important king a new manifestation of Śiva was introduced and incorporated in the iconographical layout. Under Āditya I Ardhanārī appeared, under Parāntaka I Liṅgodbhava and under Uttama Coḷa Śiva in his famous dancing pose became a fixed feature on the southern temple walls to which Bhikṣāṭana, Gaṅgādhara and Ardhanārī were added. However, during the reign of Rājarāja I no obvious preference for one or even four new deities can be noticed. On the contrary, the devotees were overwhelmed by a galaxy of so far unknown divine manifestations.

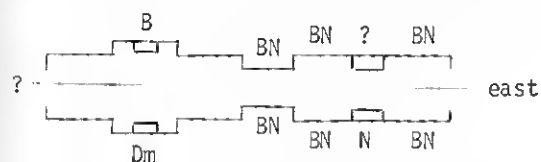
Returning to our list on p. 178 its significance can now be established although we realize that we are going to draw conclusions from loose icons, a procedure which, on the whole, is not very advisable. However, it strikes us as significant that the monuments showing a wide variety of new iconographical forms are precisely those which, on other than iconographical grounds, can be dated between A.D. 990 and A.D. 1020, the year in which the building activity at Rāmanātha Kōyil and those of the Gaṅgaikōṇḍacoḷeśvara and the Uttara Kailāsa must have been in full operation.⁷²⁾ The list shows that at a certain moment Gaṇeśa and Agastya disappeared from the outer walls of a temple. Gaṇeśa eventually returned to the fold at Gaṅgaikōṇḍacoḷapuram, though in a minor position next to Naṭarāja. We already pointed out that the shrines at Goburapatti and Tirumaṅgalam (p. 135) were probably built between A.D. 990-1000 in view of the contents of an inscription dated in the last year. This is roughly fifteen years after the first plans for the Rājarājeśvara must have been made as a result of which the sthāpatis must have realized that the traditional iconographical layout would have to be complemented with over 60 images for the walls of the gigantic vimāna and its maṇḍapas. It is likely that not long after the final design was accepted some of the most capable artists were commissioned to carve these sculptures. Of course, these new iconographical forms did not become popular overnight, but they obviously already inspired the builders of the shrines at Goburapatti and Tirumaṅgalam — at the latest around A.D. 1000 — implying that around that time the replacement of Gaṇeśa and the disappearance of Agastya had become a fact.

Returning to the Ten Kailāsa at Tiruvaiyāṭū which was the cause of this lengthy discussion, it is clear that this monument demonstrates the hybrid features of a transitional monument. Summarizing these are:

the pañjaras related to those on the temples at Kuttālam and Manampādi;
 the ground-plan of the ardhamāṇḍapa which is similar to that at Tiruvalaṅ-
 guli and Manampādi;
 the A layout indicating a relationship with the monuments at Goburapatti,
 Tirumaṅgalam and perhaps Tudaiyūr;
 the remains of the iconographical arrangement pointing towards the time in
 which the traditional set of figures was no longer customary.
 Therefore, date this koyil roughly A.D. 1000-1010.

The Uttara Kailāsa at Tiruvaiyāṇū (Pls. 64a-b).

Pls II-2-b/1-B-1 has the following layout :



Most of its images have disappeared or are severely damaged. However, the remains of the figure in the central ardhamāṇḍapa niche on the south side of the building indicate that Naṭarāja once occupied this place.⁷³⁾

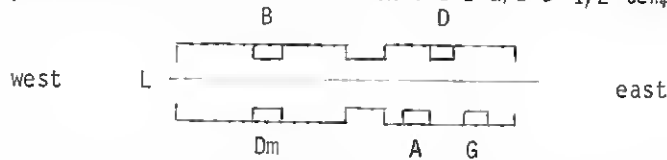
The two earliest inscriptions are dated in A.D. 1006 and are both royal records. The first informs us that a shepherd received 192 sheep for supplying fuel to this temple for the burning of perpetual lamps. The second inscription provides the name of the founder of the shrine, viz. Danti Śakti Vitanki or Maṅga Mahādevī, one of the queens of Rājarāja I. The temple was then called Maṅga Mahādevī Śvara. Once again, it is obvious that Rājarāja I took personal interest in the welfare of the koyil, for we are given a painstaking account of an important organisational aspect of the temple affairs, i.e. the burning of perpetual lamps.

The architectural style of this monument is rather plump. The pilasters have a massive character which is especially unpleasant in the blind niches of the walls of the false antarāla and the ardhamāṇḍapa. These pilasters carry heavy podigais and a plain uttira topped by a lintel and by a makaratorāṇa in the case of the blind niches on the ardhamāṇḍapa walls; on the false antarāla the podigais above the pilasters touch each other and are, as it were, tied together by a lintel which is placed immediately on top, supporting a makaratorāṇa. The mukhamāṇḍapa in front of this shrine is not connected to it and shows the same characteristics. The appearance of this complex reminds us of the Rājarājeśvara. There the plumpness of the architecture can be explained as

a result of the enormous size of the building, at Tiruvaiyārū we see the proof of an artisan who forgot that he was no longer cutting stones for a gigantic replica of Mount Meru, but rather for a secondary shrine in the compound of Pañcanādīśvara. He was definitely not a member of Śembyan Mahādevī's atelier but probably an artist who had learned his trade while working on the koyil at Tañjāvūr. In view of all this we date the Uttara Kailāsa between A.O.1000-

25. *The Nattunai Īśvara at Puñjai* (Pls. 60a-b).

This strange monument(pp. 145-46) has been mentioned frequently. In view of the above discussion about the disappearance of Agastya and Gaṇeśa from the traditional iconographical layout, the koyil becomes all the more curious. The presence of both deities on this I-1-a/1-B-1/2 temple



indicates that it was built either before the iconographical arrangement was drastically changed, viz. before A.D.990-1000 or long after that(cf. the case on Goburapatti and Tirumaṅgalam, p.181). A controversial inscription(p. 145) dating from A.O. 1007 refers in detail to a gift of 10 veli of land by Rājarāja for the maintenance of a dining hall called Arumolidevan(one of the king's names) on the condition that the temple and the Assembly would each bear half of the taxes. This implies that the shrine already existed in A.D. 1007 when Rājarāja I added the hall in question.

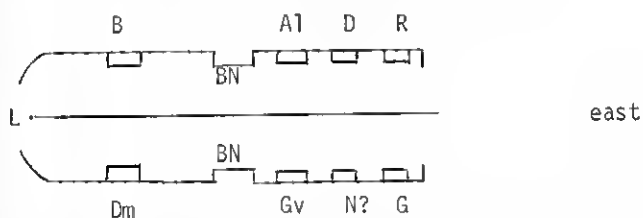
None of the architectural features reminds us of the style of Śembyan Mahādevī's workshop, for the archaic I-1-a vimāna was only known in the Muttarayar area and around Tañjāvūr; in the second place, the superb frieze of running animals above the kapota is located in exactly the same, unusual place as at Tirukkaḷavūr(Pl. 53); in the third place, the kūḍus are of a size which betrays that the sculptor was trained on the kapotas of the Rājarājeśvara and was familiar with the monument at Tiruchchennampūṇḍi built in the days of Āditya I (cf. appendix 6); and finally, the exquisite carvings on the makaratorṇas and pilasters are not so much a hall-mark of the Śembyan Mahādevī style, but rather of that of the Rājarājeśvara.⁷⁴⁾

Assuming that apprentices working, among others, on the Rājarājeśvara at Tañjāvūr became highly experienced in the carving of lace-like ornaments as a result of the countless pilasters and makaratorṇas which they had to decorate then such an artist, if called to work on a shrine somewhere else in the de-

He certainly betray his experience. Since he must have been familiar with the 8th century I monuments around the capital he could also have incorporated some of the most striking features of these buildings. A man demonstrating such skill in blending old and new ideas seems to be the only person who could possibly have created the extraordinary southern ardhamaṇḍapa wall of the Naltunai Īsvara at Pāṇai. The extra niche for Agastya on this wall then results from the special attachment of the villagers to their beloved saint, whereas the shape and finish of the building indicate that its artists were trained for a considerable time in the ateliers at Tañjāvūr. Consequently, we date the Naltunai Īsvara between 990-1007. When dealing with its unusual combination of kālī profiles we shall demonstrate that the temple can be attributed more precisely to the last phase of the 10th century.

The Mihirāmaṇḍesvara at Tirumiyachchūr (Pl. 64c).

The 1-E-a/1-B-3 temple has the following ground-plan:



Starting clockwise from the entrance on the east its iconographical layout shows: Gaṅgāvisarjanamūrti (Gv), empty (Naṭarāja?), Gaṅgāvisarjanamūrti (Gv), Dakṣiṇāmūrti (Dm), Liṅgodeśvara (L), Brahmā (B), Ālīṅgamūrti (A1) (or Candraśekhara?), Durgā (D) and Ṛṣabhānandamūrti (R). As far as we know no inscriptions have been discovered. The date suggested by Balasubrahmanyam is, therefore, rather arbitrary, so we can only draw conclusions from the outward appearance of the shrine.

First of all we may point out that the ground-plan is alien to that in the 9th century. We are confronted with a building combining a typical Pallava feature, the elephant's back, with the 1-B-3 layout which is characteristic of the Śaiva Mahādevī phase. In the second place, the shrine has makaratorṇas above all niches including the blind niches of the false antarāla, a feature which it shares with all other 1-B-3 monuments built after A.D. 985 (p. 171). Thirdly, the bhūtagaṇas are placed above a plain fascia.⁷⁵ In the fourth place, the bhūtagaṇas under the kapota of the ardhamaṇḍapa is compartmentalized by the shields of these bhūtas hold in their left hands perpendicularly to the uttira. This feature reminds us of the koyil at Tirunāmanallūr (A.D. 935) in South Arcot.⁷⁶ The bhūtagaṇas alternate with slender rafter tops. In other words, it

seems to be an old idea re-applied in a new building. Finally, the decoration of all the makaratoranas and pilasters is of high quality and the images are sharply cut but express, nevertheless, a great tenderness by their graceful features. This excellent workmanship can be compared with that of the Naltunai vara and the Rājarājeśvara.

In view of all this we propose that the Mihirāruṇeśvara at Tirumiyachch was built ca. A.D. 990-1000.

27. *The Śvetārāṇyeśvara at Tiruvenkāḍi* (Pls. 78a-b).

This shrine has the following, archaic I-2-a/1-A-0 layout:



Since the oldest records are found on the pillars in front of this temple, it must be a true copy of a previously existing brick or stone building on a stone base. An inscription from the 6th regnal year of a Rājakesarivarman repeats the contents of older records now lost. It mentions mainly large gifts of Śembyan Mahādevī since the days of her husband Gaṇḍarāditya. The last mentioned fact in this otherwise long list of events which are not arranged in a chronological sequence, is "that the Assembly of Nangur ... had received in the second year of Gandaradityadeva ... 400 kasu presented by Sembyan Mahadeviyar ... but had not made the necessary land provision for it. So it was ordered to be done now in the sixth year of Rajakesarivarman." 77) From the explicit "now" in the record we can draw the conclusion that the word refers to the year in which the original record was engraved on the walls of the shrine, i.e. in A.D. 955. The present tense used in the original was subsequently, conscientiously, repeated in the days of Rājarāja I. Balasubrahmanyam, on the other hand, interpretes the word "now" as the day on which the old record was re-engraved on the walls of the new shrine, dating it implicitly as constructed just before the sixth regnal year of Rājarāja I, viz. before A.D. 991. However, the contents of the inscription concern a transaction in the second year of Gaṇḍarāditya (A.D. 951) who also used the epithet Rājakesari(varman). We can well imagine that the assembly of Nangūr was delayed for some reason and took the necessary steps only four years later, i.e. in the sixth year of Gaṇḍarāditya's reign. It is unrealistic to assume a delay of more than 40 years, which would be the case according to Balasubrahmanyam's reasoning. The year six of a Rājakesarivarman should, therefore, not necessarily be taken as A.D. 991, implying that the koyil could have

renovated earlier or later.

When comparing the sculptural ornaments on the shrines at Tiruveṅkāḍū and Puñjai (Pls. 60a-b and 78a-b) we notice the same workmanship, especially in their sizes of energetically running animals, the large open kūḍus and the panels. In these respects both shrines strongly remind us of the monuments at Lalgudi and Tirukkaḷuvūr (Pls. 32 and 53) erected a century earlier. These last two koyils have the phantastic animal friezes; at Lalgudi it is in the proper place above the rounded kumuda of the adhiṣṭhāna as at Tiruveṅkāḍū; however, at Tirukkaḷuvūr and Puñjai it is placed on top of the kapota, because their bases do not have mouldings which can carry such a frieze. The impression is created that the artists of these two far younger shrines wanted to incorporate this kind of frieze by hook or by crook into the walls of their buildings. According to us this is a strong indication that the monuments at Puñjai and Tiruveṅkāḍū were designed by the same person(s) as was the case a hundred years earlier with the shrines at Lalgudi and Tirukkaḷuvūr. Since we suggested that the Naltunai Īśvara at Puñjai was built ca. A.D. 990-1000 we suggest that the Śvetāraṇyeśvara at Tiruveṅkāḍū was completed about the same time.

*11.3 Temples built during the reign of Rājendra I in the Kāverī area:
A.D. 1012-1044.*

We shall not dwell upon these monuments at great length, as most of their structural features are well known. Their ornamentation will prove to be the only criterion by which they can be distinguished from the group of Rājarāja shrines (nos. 19-27). The structural details of the nos. 29-37 given in appendix II, confirms this statement, for no two buildings are identical (p. 381). At the same time none of them contributes a new element to the structural layout known in those days. As such this group continues the practice of combining concepts in different ways as illustrated by the monuments of Rājarāja. However, with regard to the shapes of the kūḍus and makaratorṇas, the profiles of the pilasters and last but not least the shape of the podigais, all these elements reveal that they were not designed by the architects who were responsible for the construction of the shrines listed under nos. 19-27. Since these subjects are the subject of the next chapter the temples built under Rājendra I will be discussed there.

3. Conclusions

In this chapter we established a preliminary division of chronologically arranged shrines, each with its own dominant variant of vimāna, pañjara and/or ardhamañjarī. It appeared that the three phases as indicated on pp. 23 and 59 can be re-

fined and applied to architecture of specific subregions as indicated below.

Between A.D. 870-910 experiments were methodically carried out in the area to the south of Śrīnivāsanallūr-Kilaiyūr. These concerned basic, structural aspects such as height, lay-out and number of niches. All these experiments display an intentional and immense variation which can only be explained when we assume the existence of one office or atelier in which plans were designed and stored. In such a situation it hardly matters who commissioned a temple, for it will bear features characteristic of the workshop. So, in early distribution-patterns "royal shrines" erected by vassals or generals or built due to local initiative do not show up either as smaller replicas of "royal buildings", or as shrines belonging to a different category. The sites of all the koyils in question are located in or near the granite plateau country which might explain the predominance of tall buildings in this group.

Between A.D. 910-940 building activities moved eastwards. No further experiments with regard to height were carried out. Standard features of this period are the presence of five niches all flanked by pañjaras, a false antarāśṭra and five standard images. The experimental character shows up in the shape of the pañjaras which, moreover, betray a decline in function and thus in size.

Between A.D. 940-970 small temples were raised either on local initiative in the delta or by Parāntaka I and his generals in South Arcot. Other shrines in this district display alien features due to either Pallava or Rāṣṭrakūṭa influence. The number of niches was not immediately copied from the Coḷas, layout and height, on the other hand, were imitated in the course of 50 years.

Between A.D. 970-985 the workshop was re-installed and produced many ekaśālās in the central and eastern part of the delta during the first ten years of Uttama Coḷas reign. Later some dvitalas and one tritala were constructed in the same area. Outside the delta true copies of the products of this atelier were raised as far north as the Palar region. Towards the south, no such influence is apparent. No further structural experiments were tried out except for the relatively easy enlargement of the ardhmaṇḍapa and the standardization of nine niche images.

Between A.D. 985-1000 all types of buildings were constructed throughout the delta and beyond, each characterized by a specific combination of old and new features and a freedom with regard to the selection of devatās.

In the following chapter it will become evident that this preliminary division in regions and periods can be maintained, for the absence of structural innovations characteristic of the 10th century appears to be compensated by a remarkable development of ornamental details which run parallel to the combinations of old, structural forms, which we established throughout the Coḷamaṇḍalam.

Kramrisch 1946, pp. 261-86. Due to the fact that many Early Coḷa vimānas are closed in, it is almost impossible to establish to what extent they were built according to perfect proportions as prescribed by vastuśāstras. Nevertheless, it can be assumed that the Early Coḷa sthāpatis tried to achieve ideal proportions by trial and error, as will become obvious from our discussion.

Barrett 1974, p. 35-37.

Of the listed anomalies the buildings at Nirpalani and Śendalai are reconstructions. All other vimānas in Table A are original and will be dealt with in the course of this and/or the following chapter.

For references see appendix 7, last column. Of course a temple can be older than the date mentioned in its earliest inscription. Occasionally a shrine can be younger because old slabs with inscriptions were later on incorporated in new walls.

Barret 1974, pp. 131- 33.

A striking diversity in ornamental details on the superstructures of the divitalas among the Sapta Sthānas can be observed, especially on the śālā, on the connecting wall between the karnakuṭī and the śālā, and on the second tala wall. In Pls. 23-28 the following variations can be noticed:

on the śālā: at Tiruppalanam (Pl. 23) a pañjara occurs which is crowned by a huge kūdu and flanked by two round pilasters; at Tillai-sthānam (Pl. 24), Tiruchchātturai (Pl. 25) and Tirukkaṇḍiyūr (Pl. 28) a protruding block with an image and capped by a kūdu can be seen; at Tiruvēdikkudi (Pl. 25) there are two pañjaras flanking an image in between two pilasters, while the roof of the śālā is incorporated in the second tala.

on the connecting wall: at Tiruppalanam (Pl. 23) this has no decoration whatsoever; at Tillai-sthānam (Pl. 24) it shows a pair of pañjaras; at Tiruvēdikkudi (Pl. 25) there is a small niche with a standing image; at Tiruchchātturai (Pl. 26) and Tirukkaṇḍiyūr (Pl. 28) we notice a protruding block carrying a seated image.

on the second tala wall: at Tillai-sthānam (Pl. 24) and Tiruchchātturai (Pl. 26) we note a decoration with round pilasters; at Tiruvēdikkudi (Pl. 25) and Tirukkaṇḍiyūr (Pl. 28) two enormous dvārapālas were added.

The application of the pañjaras and dvārapālas was almost certainly copied from the Pallavas (cf. Chandra 1975, pls. 106- 23). The round pilaster (cf. Ganesa Ratha, Brown, pl. LX) is also a Pallava feature. Another group of temples - the three vimānas at Kambadahalli in Mysore (State) - also shows a variety in the shape of the śikhara. These experiments with ornamental details in the Sapta Sthānas can also be noticed in the illustrations provided by Balasubrahmanyam (Balasubrahmanyam 1966, pls. 107-09 and p. 241).

Balasubrahmanyam 1966, pp. 41 and 89. He classified the Śiva koyils at Panangudi and Kaliyapaṭṭi as Vijayālaya monuments and attributed that at Tirukkaṭṭalai to Āditya I.

These are the temples at Śembyan Mahādevī (SM), A.D. 981 and Tiruvārūr (T), A.D. 991. Other buildings of which the date is less certain lie along the coast, viz. at Tirukkaṇḍiyūr (Td) and Nāgapaṭṭinam (N) both bearing inscriptions from the days of Rājarāja I. More vimānas with three niches in each wall are the Nāgeśvara at Kumbakonam (K) and the Koranganātha at Śrīnivāsallūr (S). The dates of these temples are ambiguous and not easy to determine,

as will appear from what follows. The monuments at Tiruviḍaimarudūr (Tr) and Tirumalavāḍi (Tm) were renovated in A.D. 984 and 1026 respectively.

- 9) Introducing the makaratorāṇa in order to support an hypothesis based on the number of devakoṣṭhas in a paragraph dealing with the structure of a vimāna, might appear to be an unjustified deviation from our main theme. However, it is not the decorative aspect of the makaratorāṇa which is of importance but the presence of the saved-out block which the sculptor was supposed to carve out later on. This block was planned in the total concept from the start and cannot possibly have been added as an afterthought. So, when the makaratorāṇa is present, it is contemporary with the vimāna. If not, it was never intended to have a makaratorāṇa over the niche. How the development proceeded is discussed in appendix 6.
- 10) De Lippe (p. 172) and Dhaky (1971, p. 276) do not support Barrett's attribution.
- 11) Cf. Fig. 22c, p. 86, which illustrates that pañjaras and lateral niches are mutual exclusive, since they occupy in pairs the same recesses. In the case of dvitalas these elements appear in the two recesses.
- 12) Cf. Dhaky (1971, p. 276) who dated the Śaḍayar koyil in about A.D. 889 on the basis of sculptural evidence.
- 13) If they were taken from palm-leaves this could have happened centuries later.
- 14) Barrett 1974, p. 129.
- 15) Idem, p. 53.
- 16) Balasubrahmanyam 1966, p. 101. "...Mahendravarman I, ...who is said to have seized the country of the Cholas, embellished by the daughter of the Kavera (river Kaveri) whose ornaments are the forrests of paddy fields..
- 17) Cf. Pls. 3, 5 and 31a. The figures on either side of a devakoṣṭha could well be a purely Pallava concept. The presence of these images on the shrine at Srīnivāsanallūr seems an indication that an older Pallava temple served as example for this monument. Cf. de Lippe, p. 173.
- 18) As the temple at Tiruvaiyāṇū is completely built-in, no photographs showing the total height and width of its walls can be made.
- 19) Barrett 1974, pp. 50-52.
- 20) Idem, p. 52.
- 21) Balasubrahmanyam 1966, pp. 93-94.
- 22) The oldest inscription on the Vataṭīrtanātha temple at Aṇḍanallūr dated A.D. 918, mentions a certain Pudi Parāntaka as the founder of the shrine. Its construction - phrased in the past tense - seems to have been added to the record as an afterthought. The inscription in question deals extensively with a land-transaction which obviously did not run smoothly and left the surrounding population in commotion for a large number of years. According to this record the first transaction took place already in A.D. 90-. Of course, it is possible that in that year no stone walls were as yet available for an inscription commemorating this first transaction. On the other hand, A.D. 918 does not have to be the year in which the consecration

took place. It should merely be taken as the year in which the transaction was brought to an end. Only then the whole story was recorded for posterity. This could mean that this koyil was in existence (long?) before the first transaction took place, i.e. before A.D.904.

The third cross in South Arcot on map 6 indicates the location of the shrine at Tiruvakkaraī. Since this temple was renovated we do not know whether the cut-out niches are original.

Balasubrahmanyam 1966, pp.196-97.

The kumbhapañjara is an ornament on temple walls and consists of a flower-pot with a pilaster standing in it. It will be discussed in 4.3.1. of this chapter.

In the case of the Nāgeśvara at Kumbakonam the idea of scarcity of images seems obvious. Although the sculptures fit into their niches, they are clearly later additions (Pl. 30). One of the figures stands with its back towards Ardhanārī, a rather disrespectful attitude. The fact that the niches had to be carved out in the walls makes it improbable that the icons in the ardhamandapa are contemporary with the ardhamandapa itself. As these images seem to belong - stylistically - to the same group of sculptures placed in the niches of the vimāna, the latter are also not contemporary with the building. The year in which these figures were placed in the walls of this temple could be determined by establishing which records were partly obliterated by the niches in the ardhamandapa wall, or - if the scribe showed awareness of the presence of the cut-out niches - from which years these inscriptions date.

The fact that the images of Viṣṇu and Brahmā are carved out on the stones with which the temple is constructed, indicates that the niche of Liṅgodbhava was planned right from the start. So, the sculpture cannot be a replacement of an earlier image of Ardhanārī or Viṣṇu.
Cf. Gopinatha Rao, Vol. II, pp. 107-08, pl. XIII.

Balasubrahmanyam 1966, p.115.

The crescent is placed high up on the wall. The makaratoraṇa could well have been damaged in case the roof had collapsed. Replacement of the cracked or broken stone by a new one would then have been the normal procedure. This could have been part of the repairs mentioned by Balasubrahmanyam. Of course, another possibility is that the Naṭarāja in this panel is indeed the first ever designed. But who can establish beyond doubt when exactly a religious concept is translated into stone for the first time?

In chapter two the deficiencies of his typology were fully discussed (2.3.3.).

Barrett 1974, p. 105.

Idem, p. 135 and fig. IIe.

It is not likely that the architect ignored the obvious enthusiasm of the village population with regard to the construction of their koyil (at Tiruvilakkudi) and spoiled their building right away by cutting holes in the walls of the building still under construction.

A pulli is a small arch over a syllabic sign. It is considered to be a palaeographical characteristic of the 9th century.

Balasubrahmanyam (1975, p. 128) believed that the temple at Tirumangalam

actually dates from the time of Āditya I. Here again, he based himself on the presence of a number of special forms of Śiva, placed in the niches as detached sculptures. It concerns the figures of Hariharar and Bhikshatar (sic) which are also found in the monuments at Tiruveṅṅumbūr and Goburapatti, and at Tiruvamattūr and Virālūr respectively. Of these four shrines only the last can be securely dated before A.D. 900. As against this, the oldest record on the temple at Tirumaṅṅalam dates from the 5th regnal year of Rājārāja I, i.e. A.D. 990.

- 36) Inscriptions issued in the name of Kṛṣṇa III as well as Parāntaka I were discovered on temples throughout the South Arcot District. Parāntaka had his headquarters in the southern part of the district. Between A.D. 935-43 he had shrines raised at Erumbūr, Tirunāmanallūr and Grāmam. The first two vimānas represent the pure Coḷa type I-2-a, the third belongs to Coḷa type II-2-b.
- 37) Balasubrahmanyam 1975, pls. 398-99.
- 38) Chandra 1975, pl. 123.
- 39) Soundara 1975, pp. 299-300; pp. 288-89 and pl. 151.
- 40) Cf. also Dhaky 1971, p. 272, where he compared the Neman images with those at Nārttāmalai.
- 41) Balasubrahmanyam described this building as an ekatala with a round śikhara, but the vimāna has two talas and is crowned by a square śikhara.
- 42) By drawing up criteria which allow for a "first phase" of more than 60 years, Barrett created problems for himself. For, when the final objective is to show a development in stylistic features it should be possible to distinguish at least a few of these features in temples built in ca.A.D. 890, 920 and 940 respectively. As this is not the case we have to go by the "feelings" of the author.
- 43) Balasubrahmanyam 1966, p. 145; Barrett 1974, p. 85.
- 44) In the long run Agastya becomes a manifestation of Śiva.
- 45) Barrett 1974, pp. 107, 135 and 137.
- 46) Balasubrahmanyam 1971, pl. 9.
- 47) The size of the vimānas varies between 4 and 6m², the length of the ardhamandapas varies between 3-6m.
- 48) Barrett 1974, pp. 134-35, 137. However, we should like to point out that his typology does not represent the actual situation. In his drawings the ardhamandapa is incorrectly shown as throughout slightly more narrow than the vimāna. In reality his type II is always as wide as the vimāna which in fact, gives these temples such a balanced appearance. Furthermore, ventilator holes should not be considered equally important as niches, because they do not belong to the original design of an ardhamandapa. This implies that the subtypes Ic and Ib.1 which Barrett distinguished on the basis of these holes (our Fig. 14), do not occur in our classification and that the shrines belonging to his subtypes IIId and IIe, should, in fact, be considered as examples of his IIb category, because blind niches should be dealt with in a different way.
- 49) Balasubrahmanyam 1971, pp. 207-08.
- 50) Balasubrahmanyam 1975, p. 406.
- 51) Balasubrahmanyam 1971, p. 83.

Balasubrahmanyam 1975, p. 148.

Balasubrahmanyam 1971, pp. 26-27; Barrett 1974, p. 74.

Balasubrahmanyam 1975, pp. 119-21.

Barrett 1974, p. 135.

The temple at Tirumanancheri attributed by Balasubrahmanyam to the days of Jayan Mahādevī, was not included in our survey. On paying a visit to this monument it appeared to be a completely new building. Its layout, however, could well have been copied from the original shrine, since it still shows the characteristic 1-B-3 combination.

Balasubrahmanyam 1975, pp. 14-15 and 18.

The calculation of the complete building is as follows:

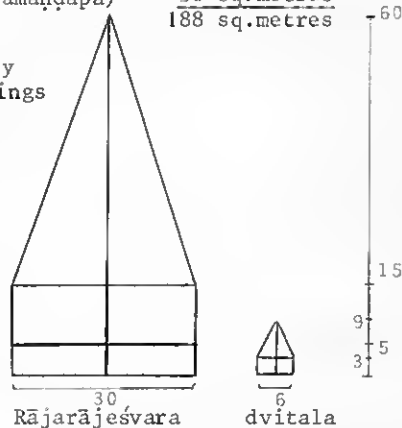
for the Rājarājesvara

- x (15 x 30 sq. metres wall surface of the vimāna including the 5 metres high base)	1800 sq. metres
- x (15 x ca. 47,4 sq. metres surface superstructure)	2844 sq. metres
- x (10 x 25 sq. metres wall surface ardhamandāpas)	500 sq. metres
	<hr/> 5144 sq. metres

for an average small dvitala

- x (3 x 6 sq. metres wall surface of the vimāna including the base)	72 sq. metres
- x (3 x 6,6 sq. metres wall surface superstructure)	80 sq. metres
- x (3 x 6 sq. metres wall surface ardhamandāpa)	36 sq. metres
	<hr/> 188 sq. metres

Of course, these measurements are merely approximations. Several subsidiary buildings and details are not accounted for: the two large gopuras, which are both taller than an ordinary dvitala, the inside walls of the vimāna, since it belongs to the sāndhāra class, the immense volume of the platform measuring ca. 330 x 55 sq. metres, the length of the prakāra walls enclosing twice an area of ca. 240 x 122 sq. metres, eight shrines for the dikpālas and eight for the aṣṭaparivāradevatās most of them gone.



We may wonder how Rājarāja I collected sufficient funds to finance such an enterprise even before he became king. According to Sastri (1966, pp. 180-81) the successful campaigns against the Pāṇḍya and Kerala kingdoms (comprising India south of the Kāverī-Coleroon) and against Śrī Lanka took place in the first five years of his reign. In A.D. 992 he fought his first victorious battle against the Čāḷukyas. This was apparently the (anticipated) consequence of his invasion of the Eastern Čāḷukyan tracts some years earlier. In A.D. 1007 Rājendra I was ordered by his father to invade the Western Čāḷukya territory, which he plundered slaughtering women, children and brahmins. From then onwards the Čoḷa empire extended its influence in all directions including Malaya and Indonesia (Sastri 1966, pp. 202-03). Since the victories of Rājarāja I can only be inferred from his undated, but in

other respects detailed epithets running along the base of his own monument, we do not really know whether he started his campaigns only after he ascended the throne. We do know that he himself ordered his son to fight his arch-enemies, the Cālukyas, seven years before his death and that he made him joint ruler two years before he passed away. So it is quite possible that Uttama Coḷa in the last years of his reign also entrusted the military affairs of his kingdom to his nephew Arumoli, the future Rājarāja I. In the same way, Rājarāja I could have laid the base of his political and financial power while he was still crown prince. This seems all the more likely since Arumoli was probably a (too?) young crown prince in A.D. 969 when he promised his uncle — who had murdered his father Āditya II according to a record from the reign of Rājendra I — to abstain from the throne till he, Uttama Coḷa had died. This event occurred seventeen years later.

If we assume this course of affairs, then a construction period of 30 years for the Rājarājeśvara is acceptable, since Rājarāja I must have had the financial means right from the start of his reign. The building was not completely finished, for there are many plain blocks on either side of the numerous niches which were meant to represent all kinds of attendants but never reached that state. We believe that the sculptors were interrupted by the king's death and left their work unfinished. Fortunately Rājendra I had shifted his capital from Tañjāvūr to Gaṅgaikoṇḍaśālapuram — perhaps from the time he was joint ruler. So, the artists and craftsmen were ordered to this new capital to erect a more or less similar temple. This second, large shrine with only eight talas is not as impressive as that of his father, for it is not as tall and has a curvilinear profile (cf. cover) and the additional buildings in its compound are less numerous than at Tañjāvūr. Nevertheless, the Gaṅgaikoṇḍaśāleśvara was not completely finished. This implies that its construction — the embellishments excluded — probably also took roughly 30 years. As Rājendra almost certainly did not have financial problems during his extremely successful, long reign, lasting 32 years, we can conclude that he too passed away before the sthāpatis had completed their work. (The other two gigantic temples in the delta were raised by kings who also ruled for more than 30 prosperous years, viz. the Airavateśvara at Darasuram built by Rājarāja II — A.D. 1146-73 — and the Kampahareśvara at Tribhuvanam founded by Kulottuṅga III — A.D. 1178-1218).

One final remark with regard to the supposed long construction period. As in mediaeval Europe trades were restricted to certain groups of persons. While these groups were maintained in Europe by way of severe selection or training periods (guilds), in India this took place by birth (casts). In both cases a sudden increase in the number of craftsmen is hardly possible when a king ordered a temple complex which was ca. 50 times larger than the customary shrines. On the other hand, a sudden decrease can be explained as a result of deteriorated circumstances. Epidemics, severe draughts or floods could have decimated the number of artisans and — more important — their families while continuous warfare could have limited the financial means of the founders.

- 60) According to his own eloquent inscription Rājarāja must have had a perfect talent in finding people willing to perform the numerous temple duties and to organize the maintenance of the buildings. Four treasurers, 174 brahmacāryas, seven accountants and nine subaccountants were provided by 144 villages, all in the province of Coḷamaṇḍalam. They had to be given a specified number of kalams of paddy per year. Some 131 villages were ordered to provide 143 watchmen for the temple. They all received 100 kalams of paddy per year. More than 400 devadāsīs were transferred from 91 shrines all over the empire and settled in two newly built streets. They were also

even an allowance of upto 100 kalams of paddy per year — which is not very much! — the net produce of one *veli* of land (26.755 sq. metres). If one of them died her relations had to provide a new *devadāsī*. Finally, 216 male servants were enlisted such as singers, musicians, dancers, a superintendent goldsmith, holders of the sacred parasol, tailors, jewel-stitchers, water-carriers and so on. In the same record the chief architect and the two assistant architects are specifically mentioned as the recipients of an unspecified remuneration.

In spite of this extremely detailed list of people connected to the temple, the men who actually built this *koyil* with their bare hands are passed over in complete silence. This is all the more stunning as even the number of cows per lamp is specified. *Rājarāja* himself made extensive grants to shepherds in the neighbourhood of *Taṅjāvūr* for maintaining 1,832 cows, 1,644 ewes and 30 she-buffaloes in order to receive enough ghee to burn 160 lamps in the temple compound (Balasubrahmanyam 1975, pp. 71-82). Interpreting Balasubrahmanyam correctly we can infer that the setting up of some 66 metal images — specified accurately by name, weight and kind of metals used — and the organisation of the temple services took six years, i.e. from A.D. 1008 till his death in A.D. 1014. This implies that a large part of the building must have been ready by A.D. 1008.

Balasubrahmanyam 1975, pp. 332-33, nos. 56, 61-64. Cf. appendix 11, nos. 30-37.

Idem, pp. 6 and 14. Cf. Volwahn, p. 180, where the time consuming problem of the transportation of the *grīvā* platform is illustrated.

In the following discussion we shall refer time and again, to reproductions in Barrett's and Balasubrahmanyam's publications. Good illustrations of the *vīmāna* at *Tiruvārūr* and its sculptures can be found in Barrett 1974, pls. 17-79 and in Balasubrahmanyam 1966, pls. 262-70.

Balasubrahmanyam 1975, pls. 42-52. The images illustrated in his pls. 51 (a-c) belong to a different — later — style than those reproduced in his pls. 47-50, which represent the standard set of figures typical of the days of *Uttama Cola*. As the pilasters and *makaratorṇas* are covered with thick layers of plaster nothing can be said about the decorative details — if at all present. The *kāl* profiles, on the other hand, will firmly date the temples as we shall demonstrate in chapter four.

Cf. Barrett 1974, pl. 55. Note the *munai* or inverted lotus petals on the pilasters of the central niche projection, an aspect to be dealt with in chapter four. Balasubrahmanyam 1966, pl. 83.

Cf. Balasubrahmanyam 1975, pls. 63-66. The temple is completely built in, which explains the awkward quality of the reproductions. Pl. 66 shows that the decoration on the walls of this shrine is quite good. In fact, on visiting this monument we discovered that its pilasters are often superbly carved.

In two respects the shrine resembles that at *Tiruppugalūr* (no. 7). In the first place every pilaster is topped by a *kamala* with *munai* or inverted lotus petals. Secondly, every corner *palagai* carries a *nāṭṭiya-peṇ*. This combination of *nāṭṭiya-peṇs* and *munai* occurs only on these two monuments. All other *koyils* in the delta built after A.D. 969 have either *munai* of *nāṭṭiya-peṇs* or no decoration of this kind at all. This aspect will be discussed in the next chapter. Cf. Balasubrahmanyam 1971, pp. 177-78.

- 68) Cf. Barrett 1974, pls. 25-27 and 80(a)-82; Balasubrahmanyam 1971, pls. 49-50. Note the difference between the decoration of the pilasters and kūḍas at Kuttālam as compared with those at Tiruvādūtūrai. At Kuttālam the slender, beautifully carved pilasters stand in a square block studded with lotus buds on its four corners and have a median band of garlands; the kūḍas are placed ca. 2 cms. above the fascia of the pañjara kapota — a feature also found in the koyils at Kīṇanūr, Tirunāgēśvara Vriḍḍāchalam and Manampādi. At Tiruvādūtūrai the pilasters are relatively short and heavy, while the decoration is superficial. The kūḍas form a perfect circle across the face.
- 69) On comparing pls. 80(a) and 48 (Barrett 1974) this statement proves to be incorrect. The pilasters of the shrine at Kōṇērīrājapuram and their decorative details show closer affinity to those at Tiruvādūtūrai (Barrett 1974, pl. 25), than to those at Kuttālam. In our opinion this indicates that the monument at Kōṇērīrājapuram is one of the first — if not the very first — product(s) of Śembyan Mahādevī's atelier. The outlines of a garland and nāṭṭiya-peṇs are only slightly cut out on this temple, whereas at Kuttālam the high relief of the same type of ornaments demonstrates an experienced hand.
- 70) Cf. our Pl. 63b with Barrett 1974, pl. 80(a).
- 71) Balasubrahmanyam 1971, p. 219.
- 72) The temple at Ramanātha Kōyil was built ca. A.D. 1019 as a paḷlippaḍai for the mortal remains of a certain Panchavan Mahādevī, probably one of the queens of Rājarāja I (Balasubrahmanyam 1975, pp. 270-71). The building activities at Gaṅgaikōṇḍaḷapuram may have started ca. A.D. 1012, although the earliest reference to the city dates only from A.D. 1029 (Balasubrahmanyam 1971, p. 241).
- 73) Barrett 1974, pls. 85-86.
- 74) Cf., for instance, the carefully carved garlands, nāṭṭiya-peṇs, makaratorāṇas and kapotas on the Naltunai Īśvara (our Pls. 60a-b and Barrett's pls. 28-31a, 34a-b, 1974) with those at:
 - Ānangūr (A.D. 980-85), Barrett 1974, pl. 51;
 - Kuttālam (A.D. 990), Barrett 1974, pl. 80(a);
 - Tiruvaiyāṇūr (A.D. 1000-1006), Barrett 1974, p. 86;
 - Tañjāvūr (A.D. 985-1014), Balasubrahmanyam 1975, p. 12 (excellent quality of garlands), pls. 13 and 15 (beautifully executed makaratorāṇas and kumbhapañjaras), pl. 19 (unfinished decorative details); pl. 22 does not represent a part of the Rājarājeśvara, but of the more recent Sumbrahmaṇya temple in the same compound.
 - Tirumangalam (A.D. 990-1000), our Pl. 50.
 - Goburapatti (A.D. 990-1000), our Pl. 49.
 - Gaṅgaikōṇḍaḷapuram (A.D. 1012 ? -1044 ?), Balasubrahmanyam 1975, p. 205. In the upper part of the first tala the kumbhapañjaras are replaced by niches, thus creating extra room for even more images than in the double-storeyed walls of the Rājarājeśvara at Tañjāvūr (pl. 7); pls. 210-24 illustrate that the quality of the sculptures is good, while that of the pilasters is not.
- 75) Cf. Kuttālam, Barrett 1974, pl. 80(a), where the kūḍas on the pañjara-kapota are also placed slightly higher up on the fascia.
- 76) Barrett 1974, pl. 18(b).
- 77) Balasubrahmanyam 1966, p. 190.



Chapter four

Development of individual components of a vimāna in Coḷamaṇḍalam between A.D. 850–1044

Introduction

From the discussion in the previous chapter it became clear that the structural aspects of a monument can only be used for its dating on two conditions:

The number of temples showing the same element should be reasonably large, because only in that case uniform regions can be demarcated.

In the course of time the population of a specific area must have expanded and there must have developed an ever increasing number of socio-religious functions inherent to temples, because only then it is likely that the size of these buildings would have been adapted.

These two conditions are applicable to the Kāverī delta and its population, but in the outer provinces this is not the case, for there we find only a limited number of monuments and their size is small. It is, however, possible to date the koyils when their decorative features are taken into consideration.

In this chapter we shall try to find solutions for the problem how to date the Early Coḷa buildings. Apart from the shrines situated in the districts of Arcot, Tiruchirappalli, North Arcot and Chingleput, many temples located in the delta will be discussed as well. These are the Sapta Sthānas and the group of koyils built after A.D. 970, for they appeared to show such an extreme variation in their structural aspects that we were forced to study their orientation.

Contrary to the structural aspects there is no coercive order in which the decorative features can be studied. The only consideration is that some

elements are liable to disappear due to renovation — as is often the case in the śikhara — or due to a rise in the level of the pavement surrounding most shrines. This is why the presence of an upāna is often hard to establish. Consequently, maps showing the distribution-pattern of variants of the upāna or upāna are incomplete and therefore do not provide a reliable picture. We shall, therefore, start our discussion with the adhiṣṭhāna, followed by a review of the vari. Nevertheless, a small paragraph on the upāna will be added, whenever the upāna is visible, we can learn something about its application, its shape and its development (Fig. 36, nos. 16-21).

The subject of the subsequent paragraph is the kāl or shaft. This element of the wall and its function is purely decorative. Its delicately carved motifs or garlands, dancing figures and playful animals have often been plastered so many times that their original beauty can only be guessed at. The contour, on the other hand, cannot be hidden that way. So, this aspect of the kāl will be studied (Fig. 36, nos. 9-14).

Another important element of a temple is its roof. Usually it is considered to be an essential part of the structural design. We, on the other hand, are only interested in its outward appearance: its profile, the way the grīvā is on its form and — in case we are dealing with a dvitala — the difference between the first in the hāra and the second tala. As said above, these aspects have more value than not been spoiled or destroyed. The only complete set of original drawings are found on temples located in the Tiruchirappalli District. Consequently, only monuments situated in this district will be discussed in the paragraph dealing with the śikhara (Fig. 21, nos. 5-7, Fig. 36, nos. 1-3).

We shall conclude this chapter with the most important criterion: the podigai or corbel. This does not change during the Early Coḷa period — as described by others — because it is characterized by merely one variant. It is not known, however, when exactly the new shapes at the beginning and the end of the long period were created. Therefore, our discussion of the Early Coḷa podigai cannot reveal the chronological sequence of the Early Coḷa temples, but it will help to settle the problem of when exactly the "pre-Early Coḷa period" merged into the Early Coḷa period and how long this period lasted. The shrines discussed in the paragraph dealing with the podigai are in the first place the Sthānas, for on their walls the Early Coḷa corbel received its definite shape, and secondly, the buildings of the period following immediately after the completion of the Rājarājeśvara at Tañjāvūr, where the new podigai was introduced (cf. Fig. 57, p. 300 and Fig. 36, no. 8).

Beside the decorative parts just mentioned we shall pay attention to the

distribution-pattern of some other ornaments which were, from the start, incorporated in the design of a wall, viz. the *idaḷ* — looking like exaggerated lot petals appearing from under the *palagai* — the *nāṭṭya-peṇs* and the rearing lions on either side of a *podigai* and standing on the *palagais*, the sculptures on either side of a *devakoṣṭha* and the panels under the pilaster in case they are applied under each and every *kāl* of the *vimāna*. These decorative details will not be the subject of a separate paragraph, but their distribution-pattern can be of help in the discussion of the *kāl*.

2. Composition of the *adhiṣṭhāna*

2.1. Typology.

The *adhiṣṭhāna* is the platform on which the *garbhagrha* stands. It consists of four parts. These are from the bottom upwards the *jagatī*, the *kumuda*, the *kaṇṭha* and the *paṭṭikā* or *akrapaṭṭiyaḷ*. A second *kaṇṭha* between the *paṭṭikā* and the *vari*, part of the wall decoration, does not belong to the base. The *kumuda* and the *paṭṭikā* can be piped both at their lower and at their upper rims with a small *padmabandha*, the *jagatī* only at its upper rim, for otherwise the impression might be created that the *vimāna* rests unstable on its *upāna*, i.e. the plinth. This plinth, usually a granite plate or a layer of bricks no thicker than a few centimetres, is an independent part of the building. During the Pallava period it often had several mouldings.

Barrett's typology suggested that both the *vari* and the *upāna* are parts of the *adhiṣṭhāna*.¹⁾ However, as this is not the case, our train of thought is rather different. Yet, a remark regarding temple bases may explain Barrett's mistake. For the function of the *adhiṣṭhāna* as a base of the *garbhagrha* had already been lost in the oldest Early Coḷa shrines. This can be deduced from the fact that the *praṇāla* — the spout which drains the *abhiṣeka* water through the northern wall — may occur in every moulding of the base, even in the *jagatī*, depending on the floor-level inside the sanctum. The temple at Tiruviḍaimarudūr, renovated in the present century, has its *praṇāla* even in the *upāna*! Apparently, the original platform on which the *yonī* and the *līṅga* stand is neither raised nor lowered when renovation takes place. This implies that the *sthāpatis* could only apply the mouldings of the *adhiṣṭhāna* with or without an *upāna* or *vari* around the given floor. If the space between the ground-level and the *yonī* was too narrow for the four mouldings of the base, then the part

the floor of the sanctum, automatically became mere decorations with-
having a carrying function. The pure concept of the adhiṣṭhāna as a true base
only applied in those temples which are located in a place where no Śiva
had ever stood before. In such cases the praṇāla was placed in or just
the paṭṭikā.

In appendix 5 aspect 3 shows some of the jagatī variations of which only
types 3 and 4 — or a combination of 3 and 4 — occur on Coḷa temples; the
variants were invented and applied by the Pallavas and Cāḷukyas. This
shows that the Coḷa monuments can be subdivided into two groups:
I, consisting of temples with a straight jagatī;
II, consisting of temples with an ogeed jagatī, decorated with lotus
petals.

A shrine shows both types at the bottom of its base, i.e. under the vimāna
the ardhamandapa, it is indicated as I/II.

Aspect 4 illustrates the seven variations in the shape of the kumuda. The
simplified versions 5 and 6 are contributions of the Cāḷukyas; no. 3, — the ku-
muda with vertical flutes — is a true Pallava type which was never applied
outside the Palar region. The kumuda commonly found on the base of Early Coḷa
temples has, therefore, either three facets (1) or a round profile (2) — shapes
which were both copied from Pallava shrines. The Coḷa artists, however, omitted
the complicated vertical flutes on the rounded kumuda and lined it with only one
or two small lotus-borders (4), so there are only two types of the kumuda:
A: the kumuda with three facets;
B: the rounded kumuda, with a lotus petal moulding.

In some cases the kumuda of the garbhagrha and that of the ardhamandapa belong
to different types. This is indicated as A/B.

Aspect 6 represents the variations of the moulding above the kumuda. The
first variant is the vyāli frieze (1), the second a kaṇṭha with or without
small panels under the pilasters (2-5) or an element which indicates the place
of the wooden rafters, which on temples built of brick and wood, used to pro-
vide on that place under the paṭṭikā (6 and 8), while variant 7, the rosette,
can be considered a petrified projection which had already lost its function.
Three variants of the kaṇṭha can be distinguished:

- variant 1: the vyāli kaṇṭha;
- variant 2: the normal, straight kaṇṭha;
- variant 3: the kaṇṭha with "mock-rafters".

Finally, under aspect 7 several variations of the paṭṭikā are represented

Fig. 37a.Step one:

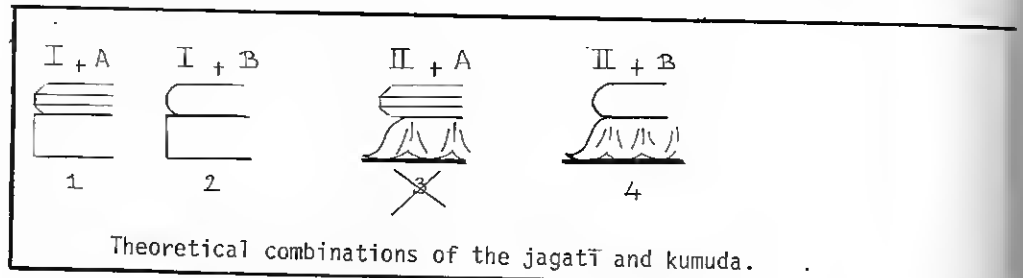


Fig. 37b.Step two:

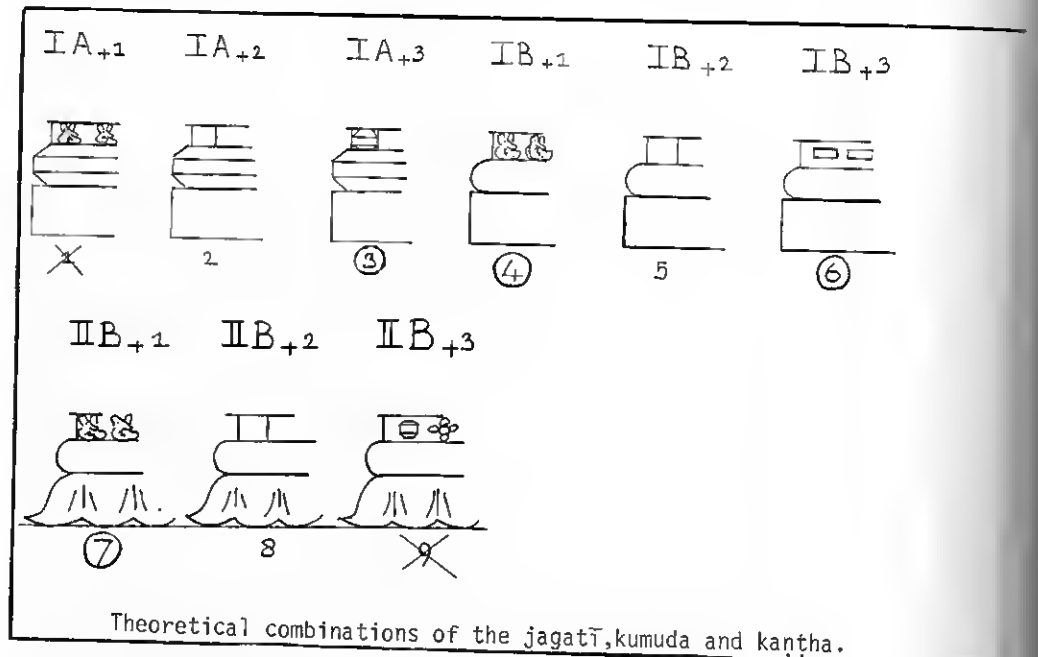
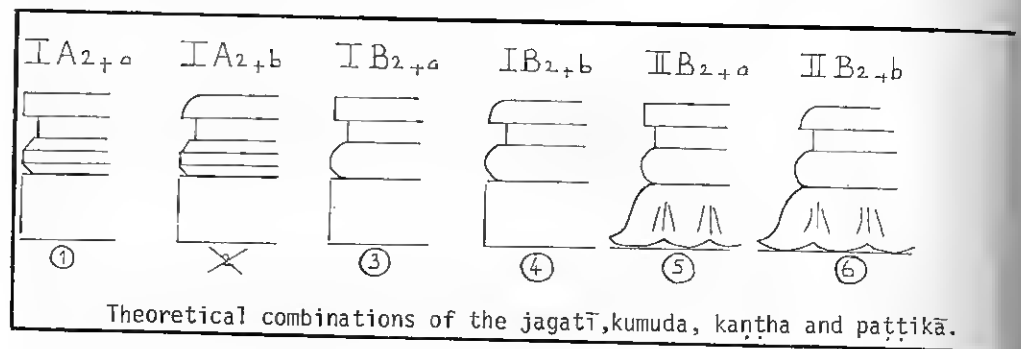


Fig. 37c.Step three:



which there are basically two types:

a: the rectangular paṭṭikā (1-3);

b: the paṭṭikā transformed into a kapota (4-7). The paṭṭikā is decorated with one or two padmabandhas (3), the kapota with vyālis (4) and/or kūḍus (5 and 6), or it is left plain (7).

The adhiṣṭhāna is a unit, notwithstanding its often differentiated composition. A typology of this temple element will, therefore, have to consist of all theoretical combinations of the four types and their variants distinguished above. If we proceed in the same way as the sthāpatis and place layer upon layer, then the following clusters can be expected step by step (see Figs. 37a-c).

Step one (Fig. 37a): a kumuda is placed on top of a jagatī. Of the four possible combinations IIA occurs only with a less pronounced curved profile on Pallava monuments, for instance on the Shore temple and the Olakaneśvara at Māmallapuram (Pls. 4-5). The elegance of the large, ogeed lotus jagatī obviously did not harmonize with the massive three-faceted kumuda.

Step two (Fig. 37b): a kaṇṭha is placed on top of kumuda and jagatī. From the three remaining possibilities of step one, nine new combinations can be deduced. The first and last shown in this figure, were never applied by the Early Coḷas. The combinations 3 and 6 were not used by the Coḷas. As they represent complete bases, a paṭṭikā over the petrified rafter-tops was really superfluous. The combinations 4 and 7 are also complete adhiṣṭhānas, for a kaṇṭha never appears above the vyāli frieze — and rightly so, for it would ruin this lively row of animals.

Step three (Fig. 37c): a paṭṭikā or kapota is placed on top of the kaṇṭha. From the three remaining possibilities of step two, six new combinations can be deduced. The second possibility occurs only once, viz. at Peruṅguḷam in the Melaveli District. All others represent complete adhiṣṭhānas.

Summarizing, seven types of adhiṣṭhānas are found on Early Coḷa monuments. These are: IB1, IIB1, IA2a, IB2a, IB2b, IIB2a and IIB2b.

At this stage it is not possible to establish a chronological sequence for these seven variants. As the basic elements had already been devised by the Vijayas and Pallavas, the contribution of the Early Coḷas consisted merely of new and enchanting combinations of well-known aspects. This is nicely illustrated in their earliest group of shrines, viz. the Sapta Sthānas and some other temples constructed before the end of the 9th century, in which they worked out these mixed forms.

2.2. Distribution of the adhiṣṭhāna variants; determination and description of uniform regions

The areas in which the straight and the ogeed jagatī occur under a straight rounded kumuda are indicated in map 7. The distribution-pattern of these variants is such that only IA and IB regions can be demarcated. The Palar area and the Tiruchirappalli District are typical IA regions, whereas the delta is a IB area. Along the borders of the Kāverī types IA and IB occur both. In South Arcot we see two separate IA areas as well as two IB zones. The elegant lotus-jagatī is not common in the Palar area; only two monuments have this type of base, viz. that at Kūḷambandal (K) and a shrine rebuilt from its vyāli frieze upwards, at Uttaramallūr (U).²⁾ Both villages are located south of the Palar and seem to link up topographically with the Early Coḷa temples in the northeastern part of South Arcot, viz. those at Dadapuram (D), Kīḷiyānūr (K) and Tirunāmanallūr (T) and the Viṣṇu Koyil somewhat further to the south at Tribhuvana (Tr) dating from the first quarter of the 11th century. At Dadapuram, the ogeed jagatī was only applied under the pañjaras (Pl. 52a). However, even in the Kāverī delta itself the lotus jagatī is not a particularly dominant phenomenon. There are only 21 instances of it in the delta, including the monuments in which two variants were applied, and two along the borders of the divided Kāverī. The Mūvar Koyil at Koḍumbāḷūr (Ko) is a solitary case in the large Irukkuveḷ area, proving that the lotus base cannot have been a contribution of the architects of these people.

Around Tañjāvūr we find a concentration of temples standing on a IIB adhiṣṭhāna. However, three of the seven monuments which determine this "region" are situated in the Pañcanādīśvara complex at Tiruvaīyāṇūr and consequently represent two phases, i.e. the style of Āditya I and that of Rājaraḷa I. The others are located at Tirukkandiyūr (Tk), Tirumalavāḍi (Tv) and Kīḷaiyūr (K). At Tirukkandiyūr the base under the ardhamaṇḍapa is different from that under the mūḷa. The twin shrines at Kīḷaiyūr were buried up to the kumuda when we paid a visit to the site. However, the adhiṣṭhāna of the Coḷeśvara was recently excavated as is illustrated in de Lippe's book.³⁾ The entire building stands on a IIB adhiṣṭhāna and we assume that the same applies to the Agastyaes in spite of basic differences in their superstructures (cf. pp. 2BB-90).

All other temples with an ogeed jagatī are situated in the central part of the delta and date from the time of Śembyan Mahādevī or later. Their locations do not allow the clear demarcation of a region, because IB variants were frequently applied in the same area and at the same time (appendix 12).

The location of the different variations of the layers above the kumuda

indicated on map 8. All variants appear to be evenly distributed over Tamil Nadu, so we have to consider them in combination with the underlying mouldings.

Temples with a vyāli frieze are naturally those which occur as IIB on map 7. In combination with the IIB mouldings they form the IIB1 group. Because regions could be demarcated for the IIB combination, a distribution-pattern of the occurrence of IIB1 cannot be established either (map 9). This is also the case with the IB1 base which is spread over a wide area (map 9). It occurs at the extreme west at Śrīnivāsanallūr (S), more to the east at Aḷlūr (Panṇā-sara, A), in the two Muttaraiyar koyils at Kiranūr (K) and Śendalai (S), in the southeastern part of the delta at Tirukkoḷikkāḍu (Tk), in the southeastern part of the delta at Vēdāraṇyam (V), four times in the centre of the delta at Maṇātha Kōyil (RK), Mahārājapuram (M), Tiruviḷakkuḍi (Tv) and under the vimāna at Tirunaṇṇaiyūr (Tn), in the apex of the delta at Tirukkāṭṭuppaḷi (Tp) and finally, in the north under the Amman shrine at Gaṅgaikoṇḍaḷapuram (G). Outside the Kāverī delta this type of base occurs six times, viz. at Kīlūr (Ki), Kukkoyilūr (Kk) and Tiṇḍivanam (Ti), all three in South Arcot, and in North Arcot under the monuments at Tiruppachchiyūr (Tp), Takkōlam (Ta) and Kāverīpakkam (Ka). The last two shrines have the fluted version. It should be added, though, that the "monument" at Kāverīpakkam consists of a few fragments only, deposited in the Government Museum at Madras.

Adhiṣṭhānas with a kapota (b) instead of a straight paṭṭikā (a) occur exclusively north of the river Kāverī (map 8). They are located at regular intervals from west to east at Tiruchchennampūṇḍi, Gandaradittam, Puḷḷamaṅgai, Tirupatturambyam, Gōvīndaputtūr and Kuttālam. Outside the delta this base was applied under the monuments at Vriḍdhāchalam (V), Dadapuram (D), Madagadipattu (M), Tirumullaivāyil (Tm), and Tiruvorriyūr (Tv), at the last two under the ardhamāṇḍa only. A kapota carrying a vyāli frieze indicated as b' in appendices 12-15, is a feature which occurs on the two oldest monuments of this group of IB2b types, viz. at Tiruchchennampūṇḍi and Puḷḷamaṅgai. The practice to decorate a kapota with kūḍus (b'') becomes customary around A.D. 980, for this design is only found at Gōvīndaputtūr, Vriḍdhāchalam, Kuttālam, Tirumullaivāyil and Tiruvorriyūr. The other shrines of the kapota group (b) have both details on and/or above their kapota (b'').

Except the koyils at the eleven villages just mentioned, all other monuments have a straight paṭṭikā. As indicated on map 8, the application of the single or double string of lotus-petals (a' or a'' respectively in appendices 12-15), is almost entirely limited to the central part of the delta. The only examples of this bandha outside the delta occur on the vimānas at Tirumullaivā-

yil (Im) and Tiruvorriyūr (Tv), on the complete building at Jambai, on the Brahmeśvara at Brahmadēśam (South Arcot) and on the Late Coḷa koyil at Nārttāmalai. As such, it appears to be a fringe phenomenon.

Combining the data on maps B and 9 we see that the adhiṣṭhāna with a kaṭa is always associated with the IB2 layer-combination. The shrine at Gōvīṇṇaputtūr forms the only exception, for here we have the truly unique IIB2b base. It is also evident that the undecorated paṭṭikā (a) belongs to the stark IA2 base. The paṭṭikā set in a padmabandha (a' or a'') generally occurs over the IB2 and IIB2 combinations.

Anomalies in the distribution-patterns on map 9 showing complete adhiṣṭhānas are hard to find, for all types are equally spread over the districts. Irregularities are, however, observed on map 7, viz. the IB/IIB components in the locational context of IA(2a). These anomalies are mentioned in Table C. In this list we have also included the shrines at Rāmanātha Kōyil, Mahārājapuram, Tirunaṇṇaiyūr and the Wanyaganātha at Tiruvārūr, because they show up as deviations in the only real "region" on map 9, i.e. the (I)IB2a tract in the center of the delta. We shall return to Table C once and again, for the temples in question display aberrations in other respects as well.

Table C.
Anomalies in the distribution-patterns in maps 7 and 9.

Name of the village	adhiṣṭhāna	locational context	District
Koḍumbāḷūr(Ko),	IIB1	} IA2a	Tri.
Kiranūr(K),	IB1		
Nārttāmalai(Melakkadambūr,N)	IB2a"		
Śendalai(S)	IB3		Tanj.
Tribhuvana(Tr)	IIB1	} IA2a	S.A.
Madagadipattu(M)	IB2b"		
Tennēri (niche) (T)	IB2a	IA2a	N.A.
Rāmanātha Kōyil(RK)	IB1	} IB2a	Tanj.
Mahārājapuram(fringe) (M)	IB1		
Tirunaṇṇaiyūr(Tn)	IB1		
	IIB1		
Tiruvārūr(Wan) (T)	IIB1	(map 9)	

Chronology of the regions.

In Fig. 38 we have indicated how different adhiṣṭhāna types expanded over the four areas and to what extent. We can draw some conclusions from the data indicated by this figure.

In the first place, the IA2a base occurs regularly at all times and in all the four areas. Consequently, the IA2a variant cannot be used as an indicator to date either the uniform regions or the temples within these regions. Secondly, the typical Coḷa lotus-base, the IIB1 variant, which was tried out at the Pañcanādīśvara at Tiruvaiyāṇūr and the Vīraṭṭaneśvara at Tirukkaṇḍiyūr (Fig. 39), was hardly ever copied outside the delta and — when applied at all — only half a century later, provided the ramshackle building at Kīḷiya-
n South Arcot is dated after the well-proportioned temple at Tirunāmanal-
kuppam (pp. 110-111). The lotus-base evidently, did not impress the sthāpatis in the Palar region. Only the architects of the Gaṅgaikoṇḍacoḷeśvara at Kūḷam-
būḷu dating from ca. A.D. 1034, placed the entire building including the
prabhavali and the attached mukhamaṇḍapa on an ogeed jagatī.⁴⁾ In the Tiruchirap-
alli District the construction of lotus adhiṣṭhānas started at about the same
time as in the delta, but the practice died out almost immediately. In the
South Arcot place, it can be concluded that the IB1 base never became popular. Ori-
ginally a Pallava innovation in the beautiful, fluted version, the Coḷas pro-
bably applied it for the first time at Śrīnivāsanallūr or Alḷūr, although in
a smooth version. In the delta it was applied at Tirunāraiṇūr for the first
time and selected as base for the two imperial koyils. Half a century earlier
this type was tried out in South Arcot and then only twice in one decade. In
the Palar region this Pallava base seems to have been eliminated. Only in the
early 11th century it turned up again under the large temple at Tiruppachchi-
nallūr. In the former Muttaraiyar area only the Śiva Koyil at Kiranūr stands on
a similar combination of mouldings. In the fourth place it is remarkable that
the IB2b variant — most probably introduced with the construction of the Śa-
rvaśiva Koyil at Tiruchchennampūṇḍi — was applied incidentally in the delta for
almost a century, but hardly found acceptance outside it. The monuments at
Maddhāchalam and Dadapuram stand on this type of base in South Arcot, al-
though they were built when the sthāpatis in the delta seem to have lost inter-
est in this form. In the Palar region the IB2b variant was added exclusively
under the ardhamāṇḍapas of the shrines at Tirumullaivāyil and Tiruvogṇiyūr. In
the fifth place it can be noticed that the IB2a variant was created by the
artists who designed the Gomukteśvara at Tiruvādūtūrai. As far as we have been
able to trace it, this type of base seems to have been rather popular and was

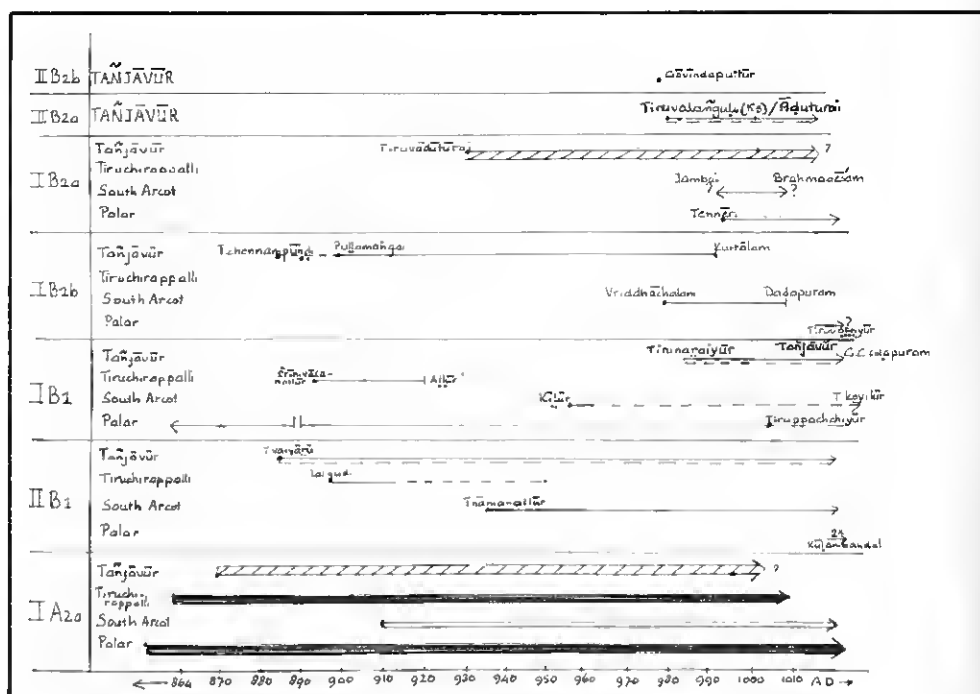


Fig. 38. Approximate appearance, disappearance and frequency of the seven types of known Coḷa adhiṣṭhānas, per district (cf. appendices 12-15)

Frequency

- more than 20
- ▨ 16 - 20
- ▧ 11 - 15
- ▦ 6 - 10
- ▤ less than 6

applied well into the next century. Considerably later it appeared on the temple at Jambai in South Arcot. Furthermore, it occurred once in the Tiruchirappalli District at Nārttāmalai on the Melakadambūr, which is, however, a Middle Coḷa monument at the earliest (p. 157). Finally, it can be concluded that the IIB2a and IIB2b combinations hardly found favour outside the delta. This is remarkable, for it concerns two types of adhiṣṭhānas which were obviously devised in the workshop of Śembyan Mahādevī, since it occurs among others on the monument at Āḍuturai, dating from A.D. 969-980 (p. 163). This implies that in spite of royal patronage, the influence of the new developments in temple architecture did not reach the outer provinces. We observed the same phenomenon in the case of the other typical Early Coḷa invention,

Fig. 39. Temples built before A.D. 900; their adhiṣṭhānas, varis and other characteristics (cf. appendices 7-9).

Name of village	c h a r a c t e r i s t i c s				
	adhiṣṭhāna	vari	upāna/panels	śik.	layout
Tiruppalanam	IA2a	under central niche	-	S	II-5-b/3-1-
Tillaisthānam	IA2a	absent	-	S	II-3-b/3-1-
Tiruvēdikkudi	IA2a	uninterrupted	panels	R	II-4-b/3-1-
Tiruchchātturai	IA2a	absent	upāna-padma	S	II-2-b/1-1-
Melatiruppūndu-rutti	IA2a	absent	-	O+R	I-2-a/1-1-
Tirukkaṇḍiyūr	IIB1/ ?2a	uninterrupted	panels	R	II-2-b/1-1-
Tiruvaiyārū	IIB1	absent	-	?	II-2-b/1-1-
Tiruchchennam-pūṇḍi(W)	IB2b	interrupted by central niche only	panels	?	II-4-b/3-1-
Śrīnivāsanallūr(W)	IB1	Coḷa ¹⁾	-	S	II-3-b/1-1-
Kumbakonam(E)	IA2a	Coḷa	upāna-padma/panels	S	II-3-b/3-1-
Puḷḷamaṅgai(E)	IB2b/IIB1	Coḷa	panels	S	III-4-b/1-1-
Tiruverumbūr(W)	IA2a	(Coḷa)	panels	?	I-1-a/1-1-
Tirukkalavūr(E)	IA2a	Coḷa	panels	O	I-2-a/1-1-
Lalgudi(W)	IIB1	Coḷa	panels	R	I-2-a/1-1-
Nemam(W)	IA2a	Coḷa	panels	S	II-2-b/1-1-
Kilaiyūr(W)	IIB1	absent	-	SR	II-2-b/1-1-
Tiruchchendurai(W)	?B1	absent	-	S	II-2-b/1-1-
Aḷḷūr(Pan.)(W)	IIB1/IB1	absent	-	O	II-2-b/1-1-
Aḷḷūr(Pas.)(W)	IA2a	absent	-	R	I-2-b/1-1-
Aṇḍanallūr(W)	IA2a	absent	-	?	II-4-b/1-1-
Nangavaram(W)	IA2a	absent	-	R	II-2-b/1-1-

E, W = East, West of the Sapta Sthānas; P=pañjara; S=square; R=round; O=octagon; ?=śik(hara)probably not original. 1) Here the vari is already interrupted by the vimāna niches. However, the vari runs on under the niches of the ardhamandapa. At Tiruchchennampūndi and Kumbakonam the vari is interrupted by the niches in the ardhamandapa. Not included are the temples at Śendalai and Tirukkāṭṭuppalī, both reconstructed by the Coḷas on a Muttaraiyar base of type IB3 and I(B1) respectively (cf. Fig. 43a, p. 216).

Temples built between A.D. 969-1014; their adhiṣṭhānas, śikhara and layout (cf. Fig. 35, p. 160 and appendix 11).

Name of village	characteristics			
	adhiṣṭhāna	śikhara	lay-out	phase
Ēirājapuram	IA2a	round	I-2-a/1-B-3	A.D. 969-980
Ērūr	IB2a"	round	I-2-a/1-B-3	
Ērāgeśvaram	IB2a"	round	I-2-a/1-B-3	
Ērurai	IIB2a"/IB2a"	round	I-2-a/1-B-3	
Ērūvalaṅguḷi (Ks)	IIB2a	round	I-2-a/1-B-3	
Ērūraiyyūr	IIB1/IB1	octagonal	I-2-a/1-B-3	
Ērūgalūr	IIB2a"/IB2a"	octagonal	I-2-a/1-B-3	ca. A.D. 980
Ērūrāmeśvaram	IIB2a"	square	I-2-a/1-B-3	
Ērūśvaram (18)	IB2a"	octagonal	II-2-b/1-B-3KP	
Ērūkkodikkaval	IA2a	round	II-2-b/1-B-3	
Ērūdhāchalām	IB2b"	round	II-2-b/1-B-3	

Ērūr	IB2a	round	II-4-b/1-B-3	A.D. 981-985
Ērūngūr	IA2a	round	II-4-b/1-B-3	
Ērūviḍaimarudūr	IA2a	octagonal	II-4-b/3-B-3	
Ērūbyan Mahādevī	IB2a"	?	II-4-b/3-B-3	
Ērūcheṅgāṭṭānguḍi (16)	IB2b"	octagonal	II-4-b/1-B-3BN	
Ērūvārūr	IB2a"	octagonal	III-5-c/3-A-3	
Ērūgapaṭṭinam	IA2a	octagonal	?-2-b/3-A-3	

Ērūtālām	IB2b"/IIB2b"	octagonal	II-2-b/1-B-3P	A.D. 986-1000/ 1014
Ērūvalaṅguḷi (Main)	IB2a"/IIB2a"	?	II-3-b/1-B-3KP	
Ērūcampādi	IB2a'	round	II-4-b/1-B-3P	
Ērūkkāḍaiyūr	IA2a	octagonal	II-3-b/1-B-1P	
Ērūvaiyārū (TK)	IIB2a	round	II-4-b/1-A-3P	
Ērūvaiyārū (UK)	IIB1	round	II-2-b/1-B-1BN	
Ērūñjai	IA2a	round	I-1-a/1-B-1/2	
Ērūmiyachchūr	IIB2a"/IB2a"	apsidal	I-E-a/1-B-3	
Ērūvenkādū	IIB1	round	I-2-a/1-A-0	
Ērūkkollikkādū	IB1	octagonal	I-2-a/1-A-1	
Ērūdāraṇyam	IB1	octagonal	I-1-a/0-A-0	

The "citizen" koyils in the villages Gōvīndaputtūr, Gandaradittam and Tirukkuḥukavūr are standing on a IIB2b, IB2b and IA2a, respectively (cf. appendix 9).

ference for one or two types of adhiṣṭhāna. The temples built during the reign of Rājārāja I do not show up as a group either. In Fig. 40 this statement is made sufficiently clear, for six different combinations occur among monuments styled as Śembyan Mahādevī koyils and seven types of adhiṣṭhānas were applied on shrines built between A.D. 985-1014 — if we include the IIB2b base under pañjaras at Kuttālam. In Fig. 41 each period, including the transitional year A.D. 980 is represented by one example.

The phase characteristic type IIB2a was applied in two ekatalas of the first period, viz. in those at Tiruvalaṅguḷi (Ks) and Tiruvirāṇēśvaram (Pls a-b).⁵¹ The exceptional position of the IB1 base at Tirunāraiūr (Tn) in the IIB2a area on map 9, could be interpreted as an indication that this monument does not belong to the first group of ekatalas, or that it should be considered the very first or the very last element added to the distribution-pattern. However, apart from the koyil at Kōṇērīrājapuram, the ekatalas are on the whole characterized by the IB or IIB component, whatever the layer placed above.

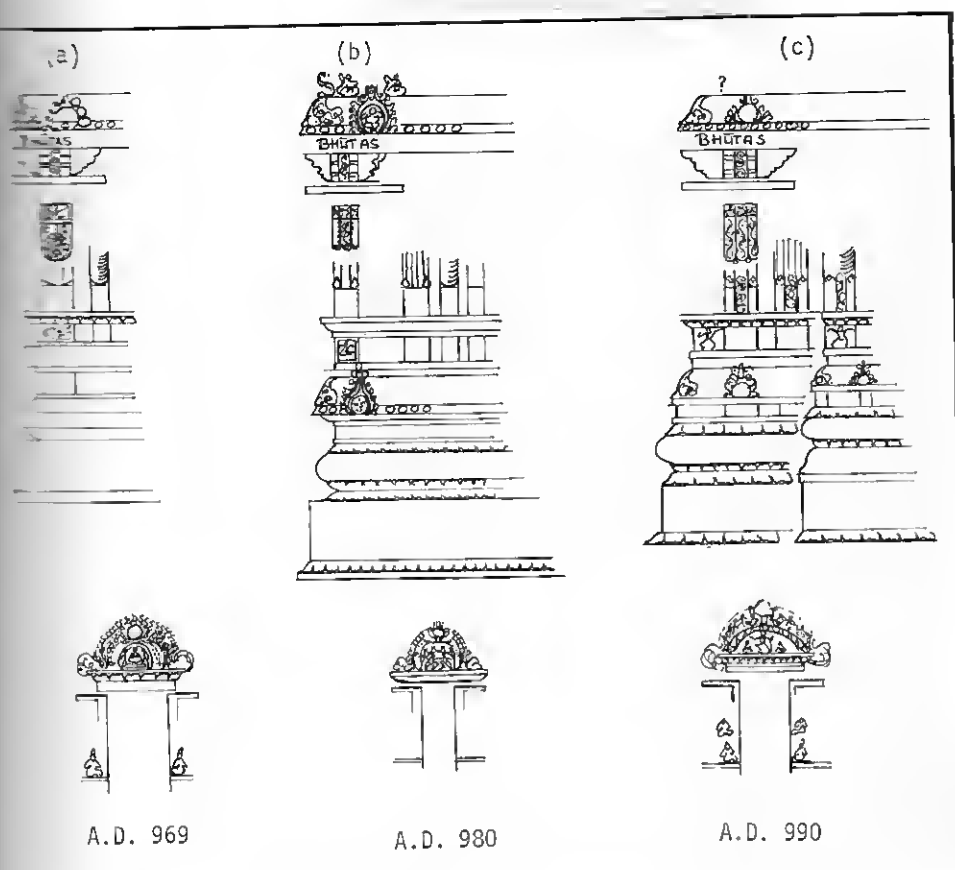
The adhiṣṭhānas of the dvitalas built before A.D. 985 display a strange feature, for they show up in pairs: the A and B components are designed in pairs and the a and b mouldings in the temples at Tirukkodikkaval and Vriḍdhācha also alternate. For the moment we do not know whether these pairs are purely accidental or intentional, but the same monuments will reappear when we compare the contours of their kālīs in combination with additional decorations such as the viṅṅg vyālis, panels, lotus buds or idals. We, therefore, prefer to postpone discussion of these shrines till the paragraph dealing with the kāl where we shall return to this problematic group.

3. Composition of the vari

3.1. Typology.

As said before, the vari must be taken as an element of the wall. It is a band sticking out for about five centimetres with a slanting profile towards the outer rim on which lotus petals have occasionally been engraved. In Coḷa temples this vari is interrupted by niches.

The history of this small bandha is intriguing, for its appearance differs depending on the people who applied it to the vimāna walls. In Pallava or Pandya monuments the vari does not run along the entire wall of the building, but is either limited to the central bay or to the central niche itself (pp. 98-99). In both cases part of the vari is present under the images, whereas in later



21. Architectural details of some Śembyan Mahādevī koyils. a) Umāmaheśvara, Kōṇērīrājapuram; b) Vṛddhagirīśvara, Vṛddhāchalam; c) Uktavedeśvara, Kuttālam.

N.B. The development of the plain type of base into one of which the layers are decorated each in its own way (Kuttālam) coincided with a development of the wall ornaments as is illustrated by the appearance of the pilaster.

At Kōṇērīrājapuram the kaṇṭha is the only part of the base which is modestly decorated with small panels; its pilasters are round and octagonal, all displaying a delicately carved mālaśthāna; its kapota carries a series of kūdus framed with either three rather large curves (right) or with a bundle of tiny strings (left).

At Vṛddhāchalam the upāna and the kumuda display a padma-bandha; there are four types of kāl, the octagonal and polygonal pilasters exhibit an entirely new element, viz. the lotus buds immediately above the square base of the kāl; its kapota carries a row of kūdus interrupting a band of circles in contrast to the situation at Kōṇērīrājapuram where circles are part of the kūdu.

At Kuttālam the new additions are the pañjaras, the IIB2b base under these pañjaras, the vertical band of garlands on the square part of the kāl and the position of the kūdu above the band of circles.

Coḷa shrines it is precisely absent at that place. In Cāḷukya architecture the vari is applied without interruption along the entire length of the temple wall. So it cannot be said that the Coḷa architects devised the vari, but it can be maintained that they knew how to incorporate this element in an admirable way into their vimānas with real devakoṣṭhas. The impression is also created that the first efforts to apply a kind of vari are not merely variations on a Cāḷukya theme, but also on versions found on late Pallava temples. For, at Tiruppattur the architect had devised a kind of half-hearted solution to provide the cut-out niches with a support, in the form of a beam somewhat wider than the niche. In this form the vari is no more than a step, a footboard for the deity to enter his niche. From the side of the Muttaraiyars, however, the Coḷa artists could expect nothing. As we have seen, the Muttaraiyars built, in a historically dim period only granite boxes for their gods with a minimum of decoration and without niches (Pl. 17).

On the basis of the absence or presence of the vari element, the temples can be divided as follows:

- temples without a vari;
- temples with a vari only under the niches or under the central niche projection;
- temples with an uninterrupted vari; and
- temples with a vari interrupted by the devakoṣṭhas.

If a vari is present it may be plain or decorated with a padmabandha.

3.2. Distribution of the vari variants; determination and description of uniform regions.

On map 10 the areas have been plotted which can be demarcated on grounds of the uniform distribution of, among others, particular vari types. This time, at last, large regions show up. These are characterized by:

- temples without a vari, viz. almost the entire area south of the undivided Kāverī and a strip along the Ponnaiyar in South Arcot;
- temples with a padmabandha on the vari, viz. the central area in the Kāverī delta, South Arcot except the strip along the Ponnaiyar, the Palar region except the Pallava monuments with the cut-out niches discussed already in chapter three (pp. 98-99); and
- temples with a plain vari, viz. the zones around the central part of the Kāverī delta and along the northern bank of the undivided Kāverī.

The small area around Tañjāvūr shows a mixture of all types, especially the three oldest of the Sapta Sthānas: the vimānas with three devakoṣṭhas, each

ch displays another solution of the problem as to how to apply the vari.

In general, the distribution-pattern in map 10 indicates merely differences between regions and only a few temples appear to be anomalies. They are listed in Table D and will be discussed in the paragraphs in which each district is analysed. However, it may be useful to investigate whether or not the way in which the vari had to appear, was already established by the architects working in the Sapta Sthānas. For, if the place of the vari was fixed towards the end of the 9th century, a chronological sequence of the regions and the temples within these regions cannot be determined on the basis of this element, the more so since in this respect the distribution-pattern is too simple. The monuments

Table D.
Anomalies in the distribution-pattern on map 10.

Name of the village	vari	locational context	District
Nirpalani(Ni)	vari		
Enadi (E)	uninterrupted	no vari	Tri.
Nārttāmalai(Na), (Melakkadambūr)	vari + upāna		
Sapta Sthānas	no uniformity	uniformity	Tj.
Tiruvamattūr(Tv)	uninterrupted		
Tirunāmanallūr(T)	absent	vari	
Tiruvakkarai(Tk)	uninterrupted + upāna		S.A.
Tiṇḍivanam (Ti)	uninterrupted		
Mēlpādi(M)(Som.)	absent		
Takkōlam (Ta)	footboard vari	vari	N.A.
Brahmadēsam (Br)			
Tiruttāni (Tt)			
Velachchēri(V)			
Tiruvanmiyūr(Tm)			

of which we assumed that they were designed before A.D. 910 were listed in appendices 7-9 and appear in Fig. 39 (p. 208) as having been built before A.D.900. We shall now explain why they have to be considered as 9th century monuments.

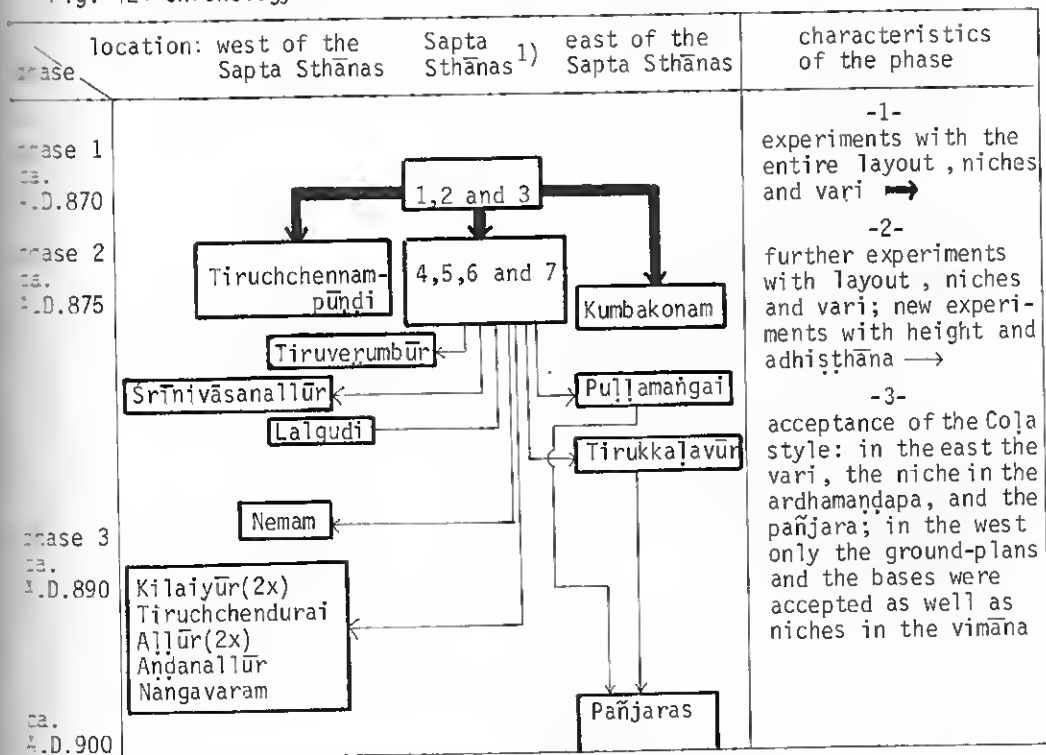
3.3. Development of the vari in and around the group of Sapta Sthānas.

The architectural details given in Fig. 39, compel us to draw a number of conclusions. Firstly, the three oldest of the Sapta Sthānas, have the usual Pallava base integrally, but show experiments with the Pallava and Cāḷukya types of vari. In the second place, it becomes more likely that the shrines at Meṭṭiruppūndurutti and Tiruchchātturai form a small subclass. These two monuments do not only share the layout 1-A-0, in which respect they deviate from the previous three temples, but they also have the same base, i.e. the IA2a type with a vari running along the entire wall. They do differ, though, in the number of talas and in the shape of their upānas and śikharas. We, therefore, believe that the sthapātis tried to experiment with a new layout by applying variations in the elements mentioned, while in other respects they reverted to old Pallava concepts. In the third place, it becomes clear that the koyils at Tirukkaṇḍiyūr and Tiruvaiaiyāṛū are the last two of the Sapta Sthāna group, for here the concept of the lotus jagatī was realized for the first time. The shrines correspond in their height and in their groundplan, i.e. II-2-b. They differ, however, in their layout, 1-A-1, and in the application of the vari. Moreover, in our opinion there is a far more important aspect which should be stressed, viz. the fact that the bases under their ardhamandapas are not identical: the ardhamandapa at Tirukkaṇḍiyūr does not stand on a IIB1 base, but presumably on a IA2a or a IB2a adhiṣṭhāna, for the -2a part is just visible above the pavement. Unfortunately, the ardhamandapas do not have a praṇāla, so the pit which in such cases is dug out in front of the Durgā niche in order to catch the abhiṣeka water, is absent—a circumstance which makes it impossible to determine the now firmly hidden mouldings. If the pavement around this shrine should ever be removed it is possible that the ardhamandapa would appear to be standing on a IA2a base. The shrine would then be a transitional type in which the architects had not yet dared to place the original IIB1 concept under the entire building as in the case of the Pañcanādīśvara at Tiruvaiaiyāṛū. However, in our opinion, it is also possible that a IB2a adhiṣṭhāna would be discovered under the ardhamandapa. This would explain the rather sudden appearance of the IB1 adhiṣṭhāna at Śrīnivāsanallūr and Alḷūr (Pañ.). At the latter village two types of base were designed for one and the same building, so an ardhamandapa of a IB1 type for the temple at Tirukkaṇḍiyūr seems a reasonable guess. In the fourth place, we have noticed a continuation of the vari experiments in the Śaḍayar koyil at Tiruchchennampūṇḍi. Here the first step was taken towards the real "Coḷa" vari (Pl. 35a and Fig. 39). The vari is already missing under the central devakoṭhas but is still present under the lateral niches. The other two

Śrīnivasanallūr and the Kumbakonam, show that the consequence was finally drawn: in both buildings the vari is interrupted by all niches. From this fact two conclusions can be drawn. Firstly, the Koranganātha should be considered an Early Coḷa monument since it is decorated by a vari, an element entirely unknown in the Irukkun area (map 10), and secondly, the Śaḍayar koyil must have been built before the Nāgeśvara, i.e. before A.D. 886, since the latter represents a later phase in the development of the vari.

In Fig. 42 we have tried to indicate and characterize the successive phases in which the rather phantastic string of Śiva koyils along the borders of the Kaverī, listed in Fig. 39 were designed. The main characteristics of the first two phases were derived from the Sapta Sthānas, those of the last phase from the distribution-pattern of the variants discussed so far.

Fig. 42. Chronology of and relations between the temples built before A.D.900



1) the nos. 1-7 represent Tiruppalamam, Tillaisthānam, Tiruvēdikkudi, Tiruchchatturai, Melatiruppūndurutti, Tirukkandiyūr and Tiruvaiyārū.

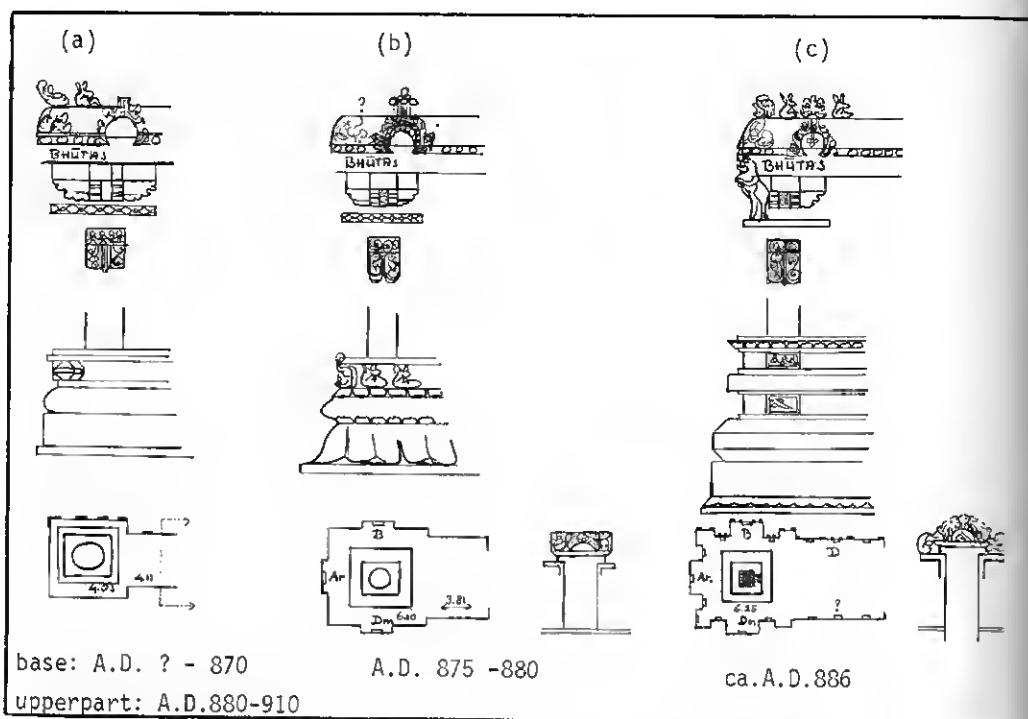


Fig. 43. Architectural details of some koyils around Tanjāvūr.
 a) Sundaresvara, Sendalai; b) Pañcanādīśvara, Tīruvaiyārū;
 c) Nāgeśvara, Kumbakonam.

N.B. The monument at Sendalai displays a hybrid character. Its IB3 base is probably typical of Muttaraiyar architecture, for the Early Coḷas never applied this combination. The upper part of the walls and the prastara are beautifully decorated — a feature which is strikingly absent on all other Muttaraiyar koyils in this area (cf. Pls. 17-18).

The experiments in the first phase concerned the layout, the number of niches and the vari, but the adhithāna was left untouched. In the second phase further experiments were carried out in the layout while the number of niches was simultaneously reduced (pp. 102). The height of the building — so far always a dvitāla — now became variable (at Melatiruppūndurutti) and new forms were devised for the base in the widest sense, i.e. the upāna, the adhithāna and the vari. Instead of being a straight layer the upāna now became slightly rounded and decorated with a lotus band (Tiruchchātturai). Then the architects tried out something really audacious: they turned the straight tall jagatī into a large lotus turned upside down (Tīruvaiyārū, Tirukkāṇḍiyūr, Fig. 43b).

Having formulated the characteristics of the second phase, a few more monuments can now be added to this phase:

— the *Śaḍayar koyil* at Tiruchchennampūṇḍi (Pl. 35a), because it obviously

- represents the final stage of the vari experiments and introduces a new type of adhiṣṭhāna, whereas its layout and the number of niches were copied from the shrine at Tiruvēdikkudi (Pl. 25);
- *the Nāgeśvara* at Kumbakonam (Pl. 30, Fig. 43c), east of the Sapta Sthānas, because it seems to introduce the new Coḷa vari and combines the concept of a Totus upāna with panels on the kantha, a combination first found on the shrines at Tiruchchātturai (Pl. 26), and Tiruvēdikkudi (Pl. 25), respectively. Its layout is identical with that of the koyil at Tillaisthānam (Pl. 24), and its number of niches with that of the shrine at Tiruvēdikkudi. No experiments with the height can be noticed in the Nāgeśvara, but we may say that a design for the superstructure was tried out, for at present the square śikhara is extended with a modern śukanāsa which is probably a replacement of a dilapidated prototype on its eastern side (p. 47);
 - *the Brahmaṇḍaśvara* at Puḷḷamaṅgai, east of the Sapta Sthānas (Pls. 38a-d), because it shows experiments with the height. Furthermore, it has a hāra running along the ardhamāṇḍapa, once more an old Pallava concept, (cf. appendix 3). Its number of niches was reduced and pañjaras were applied instead. These pañjaras stand on the brand new adhiṣṭhāna of type IIB, its ardhamāṇḍapa which has a layout with a central niche projection and a small extension in front of it, is copied from the shrine at Tiruppalanam;
 - *the Koranganātha* at Śrīnivāsanallūr (Pls. 31a,c), because it introduces a new type of base and shows further experiments with the roof construction on a new layout, i.e. that of a sāndhāra or double-walled vimāna, which automatically requires a revision of the customary dvitala. Its roof is made of brick, probably because the sthāpatīs did not dare to cover the entire width of the sāndhāra with granite slabs. The hāra above the kapota is roughly twice as high as the hāra of an ordinary dvitala;
 - *the Pipṭleśvara* at Tiruverumbūr (Pl. 39), because the number of niches was reduced by replacing them partly by pañjaras according to an old Pallava concept (p. 118). Simultaneously, a new layout was added to the new II-2-b and II-2-a designs of the monuments at Tiruchchātturai and Melatiruppūndurutti respectively. The 1-A-0 combination of the Pipṭleśvara was, however, copied from these two koyils. The base — decorated with panels and covered by a vari — is identical to that of the Nāgeśvara at Kumbakonam;
 - *the Saptarṣīśvara* at Lalgudi (Pl. 32), west of the Sapta Sthānas, because it introduces either the first mukhamāṇḍapa or the first antarāla (p. 158). It is the first example of an Early Coḷa temple with a Coḷa vari running along its walls above a Coḷa adhiṣṭhāna. Its layout, however, is identical with that of

the koyil at Melatiruppūndurutti (Pl. 29a);

- the *Madhuvaneśvara* at Tirukkaḷavūr, because here the final phase in this assumed development was reached. This small monument combines the layout of the shrine at Melatiruppūndurutti with the concept of one niche in each wall of the ardhamandapa as applied in the dvitalas among others at Tirukkaṇḍiyūr. It stands on a IA2a base, so in principle the sthāpatis could not add a vyāli frieze. Nevertheless, they found a place for a beautifully executed frieze of running animals (Pl. 53) above the kapota of this building. Its I-2-a vimāna and 1-A-1 layout and the presence of the vari interrupted by the five niche became the most popular combination in the delta, east of the Sapta Sthānas (Fig. 24a, p. 89).

At Nemam (Pl. 59), west of the Sapta Sthānas, no new contribution can be noticed. It is the site of a II-2-b/1-A-0 building identical to that of the koyil at Tiruchchātturai (Pl. 26), the only difference being that the former has a vari running along its walls, whereas the latter has plain walls.

In phase 3 a regional differentiation occurs: west of Nemam temples were built with layouts identical to those of the Sapta Sthānas, i.e. II-(2, 3 or 4)-b and I-2-a, but all without a vari and without niches in their ardhamandapas. East of the Sapta Sthānas the vari and the niche in the vestibule will become a permanent feature of the koyils constructed during the subsequent period, i.e. the pañjara phase in which the false antarāla is a second characteristic (cf. appendix 8, no. 3 and appendix 10). A third peculiarity during the following period is the predominance of the ekatala.

In a geographic time-perspective we seem to observe a kind of religious consolidation of the political power of Āditya I in the area he had firmly in hand. First he ordered the construction of the seven shrines right in the heart of the old Muttaraiyar region, between Śendalai and Tañjāvūr. Next, after having built the koyils at Tiruchchennampūṇḍi and Tiruveṟumbūr, he demarcated his territory by financing the imposing structures at Kumbakonam and Śrīnivāsanaḷlūr on the periphery. He then stimulated the replacement of the old brick shrines by stone structures in the rather narrow, but fertile strip along the borders of the Kāverī, first near Tañjāvūr itself, at Puḷḷamaṅgai, Lalgudi, Tirukkaḷuvūr and Nemam, later in the other villages west of the Grand Anicut.

This second group was probably built under the patronage of the Irukkuvē since Āditya I himself left the delta around A.D. 890, in order to subjugate the Pallavas. This course of affairs cannot be confirmed with certainty as the information with regard to the political campaigns of Āditya I is scarce.⁶⁾ From

A.D. 890 till some years before his death he is known to have lead expeditions to the northern provinces far beyond Mēlpādi, Tiruttāni and other places, in order to settle his affairs with the Pallavas. This can only mean that he could safely leave his capital and the regions conquered during the past twenty years. In other words, he left some sort of administration behind looking after law and order in his kingdom. On the other hand, he had to feed his elephants and soldiers and pay the latter during his campaigns. So his financial position — even though supplemented by forced labour and payments by the population of the villages in which he camped — must have been less favourable.

This could have been the reason why no more temples were constructed in the area till Parāntaka I succeeded his father in ca. A.D. 907. The stone koyils situated between Tiruveṇṇambūr and Śrīnivāsanallūr must have been built in the first decade of the 9th century under the supervision of his vassal, the Irukku-⁷⁾ chief and by the architects and craftsmen of Āditya I who would otherwise have been left unemployed.

14 Application of the vari in other regions.

1. *The region south of the undivided Kāverī* (Table D, p.213).
 Though we can be quite certain about the development of the vari in the old heartland of Āditya I, we must remain vague about the monuments in the other parts of the Tiruchirappalli District. Here the vari was never accepted as a embellishment of the wall (map 10). The only two monuments with a vari south of the Kāverī are located at Nirpalani (Ni) and at Nārttāmalai (Na) where the Kakkadambūr is decorated with this detail. Both shrines have been discussed previously (chapter three, note 3, and pp. 156-157 resp.). The first building was renovated at some unknown time, the second dates from the days of Rājendra at the earliest. The building at Enadi (E) with its uninterrupted vari is a remarkable anomaly. Balasubrahmanyam assumes that this small, unattractive shrine is an example of the Muttaraiyar style⁸⁾, but we would rather suggest that it was rebuilt on an old base, since the vari is an ornament unknown to the Muttaraiyars as map 10 shows. The adhiṣṭhāna is moulded according to the 12a form current in this area, and there are no niches, but in fact this is exactly the reason why the vari is not interrupted. Because renovation took place from the paṭṭikā upwards and on a layout not meant for niches, the buildings were not hampered by them and consequently applied the vari on niche-less walls. The fact that the ardhamaṇḍapa is replaced here by a small portico is another anomaly in this area, where the Muttaraiyar koyils always have a closed

ardhamandapa, however small this may be.

3.4.2. *The South Arcot District* (Table D, p. 213).

South Arcot is an area where the vari has a dominant position (map 10). A few temples do not have this ornament and only three have the archaic uninterrupted vari. All monuments in this region are listed in appendix 13. The latest example of a shrine without a vari is located at Bāhūr (6) which was under construction in or before A.D. 965. Except for the shrine at Tirunāmanallūr (13) the buildings without vari are situated along the Ponnaiyar or to the south of this river. We are inclined to believe that the introduction of the vari, which was apparently a foreign ornament, occurred around A.D. 960. The same obvious reluctance to include this element — observed in the Tiruchchirappalli District where the vari was applied on renovated monuments only after A.D. 950 (Tiruppalluvar Uyyakkōṇḍān Tirumalai, Nirpalani, pp. 140-41; 148-49; chapter three, note 3) — may have prevailed also in South Arcot. We shall now discuss the temples listed in Table D, p. 213 and appendix 13, in order to establish whether this supposition is correct.

The Śiva Koyil at Pēraṅgiyūr (Pls. 65a-b, appendix 13, no. 5).

This shrine has a square ground-plan common in the heart of South Arcot (map 3). It is the typical Pallava layout rejected by all Early Coḷa architects. Since the dated monuments at Erumbūr, Grāmam and Tirunāmanallūr (Figs. 44b-c, 45a) have the Coḷa version, in which the central part of the vimāna-wall juts out (-2-), we may assume that at least the base of this Śiva Koyil is older than those of the three dated monuments just mentioned, i.e. older than A.D. 935. The inscriptions running from A.D. 924 to far into the reign of Rājārāja I seem at first glance to confirm this view. However, in that case the presence of five full-fledged niches is problematic (Fig. 27, p. 96, p. 102), for the shrines at Tiruvāmattūr (Fig. 44a) and Erumbūr, dated around ca. A.D. 910 and A.D. 935 (appendix 13) respectively, do not have proper niches — only holes are carved out in their walls (Fig. 27, p. 96; Pl. 66). The temples at Grāmam, Tirunāmanallūr and Kiliyanūr dated in A.D. 943, 935 and before 940, all have one devakoṣṭha in the wall of either the vimāna or the ardhamandapa. Now, the niche in the wall of the ardhamandapa at Pēraṅgiyūr is peculiar in the sense that the normal, tall pilasters flanking the shorter niche-pilasters are absent and the connection of vimāna to the ardhamandapa is not constructed in the usual way. The first pilaster of the ardhamandapa should either be directly connected to the corner pilaster of the vimāna in such a manner that the two palagais touch each other

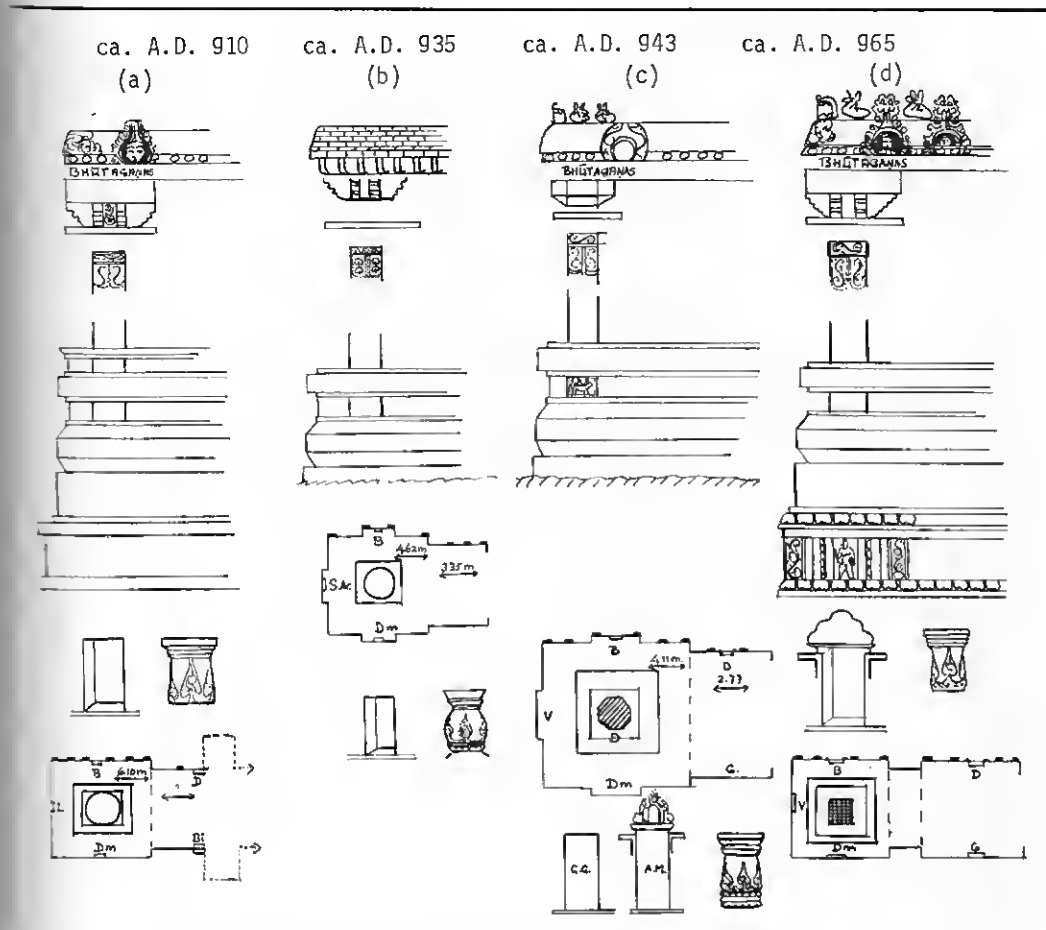


Fig. 44. Architectural details illustrating the slow development of the Early Coḷa style in an area dominated by a strong Pallava influence (South Arcot between A.D. 910-965).

a) Abhirāmeśvara, Tiruvāmattūr; b) Kadambavaneśvara, Erumbūr;
c) Śivalokanātha, Grāmam; d) Śrīmulanātha, Bāhūr.

or else they should be placed some distance away from the corner of the vimāna (cf. Pls. 53, 54 and 82). So, obviously something happened to the original ardhamaṇḍapa, which must have been without niches. The fact that the inscriptions run over the lintel above the image of Gaṇeśa is a sure sign that they were copied from older stones since records in places where they do not belong are only found on renovated koyils (for instance at Kōyildēvarāyanpēṭṭai, Mēlpādi). We, therefore, suggest that the former porche has disappeared and was rebuilt partly with the original stones, since the kapotas are similar. This must have happened

when experiments with the number of niches were still going on, i.e. during construction of the shrines at Erumbūr, Grāmam and Tirunāmanallūr. They all miss the vari, and display uncertainty as to the number of niches, a problem which was finally settled with the design of the temple at Bāhūr in A.D. 965 (cf. Figs. 44b-d, 45a).

The Abhirāmeśvara at Tiruvāmattūr (Pl. 66; Fig. 44a; appendix 13, no. 2). Here again we have a monument with a square -1-b layout, typical of the Palaiy region. Consequently, the Parakesari in an inscription for the year 6 mentioning the name of the man who actually built this temple, the sthāpati called Naranan Vedankan or Tiruvāmattūr Acharayan, could well be Parāntaka I, and the year therefore A.D. 913. It is then interesting to note that in spite of the supremacy of the Coḷas in this area, their cultural impact was nil, as is shown by the layout of this monument. It stands on a high upāna or plinth, an element entirely unknown in Early Coḷa architecture and customary in the Palaiy region (map 10). Its walls are decorated with six pilasters, there are no projecting parts and the niche is not ornamented as must have been the case with shrines in brick walls. It is unlikely that this semi-brick temple was renovated in the days of Uttama Coḷa, as Barrett suggested, since in that case the treatment of the stone walls would have been different (cf. the nearby monuments at Pachālam and Tiruvāndārkōyil, Pl. 68). The uninterrupted vari therefore illustrates a strong Pallava influence on the architecture of South Arcot in the early days of Parāntaka I.

The Candramoulīśvara at Tiruvakkarai (Pl. 67; appendix 13, no. 1). According to Barrett and Balasubrahmanyam, this shrine was renovated in the days of Śembyan Mahādevī ca. A.D. 1000. Our previous statement that renovations dating from that period should show a Śembyan Mahādevī touch would seem to be contradicted, for the vari runs on. This monument, however, possesses a strange combination of features: it stands on a low curved upāna, has a 1A2a base, a square lay-out like the shrines at Pēraṅgiyūr and Tiruvāmattūr, plain undecorated pilasters and niche-pilasters, all looking brand-new. The cornice, on the other hand, with its large, wide open kūḍus, is a beauty, and so are the palagais, and the curved podigais without median band. In fact, the obvious difference in ornamental treatment of the upper and lower parts of this building indicates that the old shrine was taken down and replaced by another, in the course of which worthwhile remnants such as the kapota, the corbels and some of the original palagais were re-used. Since the kapota is straight, the underlying

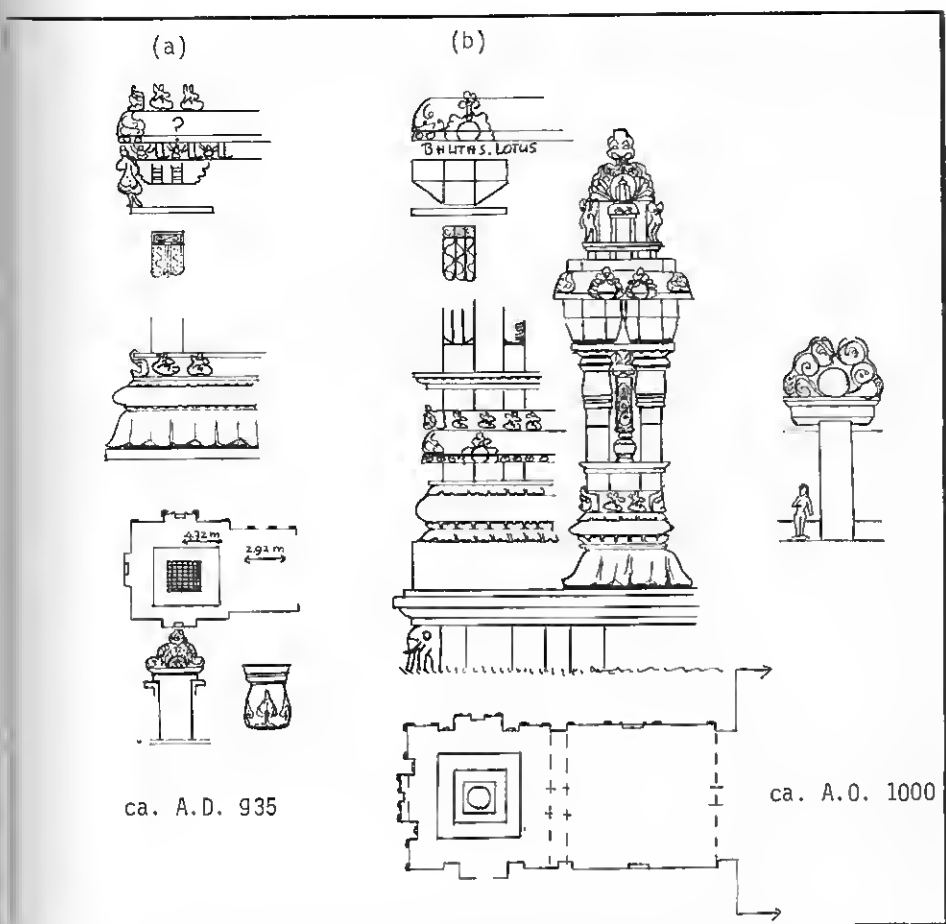


Fig. 45. Architectural details of the Early Cola style in South Arcot characteristic of the 10th century.

a) Bhaktajñāneśvara, Tirunāmanallūr; b) Kundavai Vinnagar Alvar, Oadapuram.

also had to have a straight layout as the kapota would otherwise not fit. The point is whether this happened in A.O. 1000 or much later. We are inclined to believe the latter, because the inscription mentioning the renovation of the shrine, refers to the rebuilding of a koyil called the Śivalokamudaya Paramaśvā-
 ... We know that temple names often changed, but we also know that records on the shrine occasionally mention events referring to another koyil in the same vil-
 lage or even in another hamlet. Now, Barrett classified the Candramoulīśvara as a monument standing on a IB1 base. This is not correct, since its base belongs to the IA2a category. However, there are a few minor shrines in the compound showing the IB1 adhiṣṭhāna, so it is quite possible that one of these smaller

buildings was formerly called the Śivalokamudaya Paramaśvāmin and at one time renovated around A.O. 1000.

The presence of the vari along the walls of the monuments at Kiḷiyanūr, Tiṇḍivanam and Kṭṭūr is problematic. These three temples were built before A.D. 960, i.e. more than five years before the shrine at Bāhūr which still has no vari. In contrast to the temples without vari which stand on the austere IA2a base, the three shrines with vari stand on either a lotus adhiṣṭhāna (Kiḷiyanūr) or on a IB1 base and, moreover, have the full-fledged Coḷa niches (appendix 13). So in South Arcot we are confronted with two styles in the same area and the same period. The question then arises how long the Pallava influences were able to keep out the lotus vari from above the IA2a base, and the two extra niches from the walls. We shall also have to ask ourselves whether Balasubrahmanyam was right in stating that the monument at Tiruvāṇḍārkōyil on a IA2a base with a vari can be dated in ca. A.D. 922. We shall first look at this last problem.

The Pañcanāḍīśvara at Tiruvāṇḍārkōyil (Pl. 68a-b; appendix 13, no. 8).

This monument has a Coḷa design: for it is a -2-b vimāna and part of a 1-B-1. Balasubrahmanyam took the Parakesari mentioned in a record of the year 15 of Parāntaka I, whereas Barrett interpreted the year 14 of Parāntaka I mentioned in a record of Rājarāja I as a copy of an old inscription (p. 156). This explains why they attributed the temple to A.O. 922 and A.D. 990 respectively. In the same copied inscription in which Parāntaka I is mentioned, a gift is recorded of the days of Kṛṣṇa III or Kannaradeva. Barrett correctly deduced from the fact that an older shrine was renovated. However, he was wrong when he assumed that the decision about this renovation was taken in A.D. 990. From previous examples we know that old records were not necessarily re-engraved in the same year as the completion of the renovated temple. Occasionally it even took several decades before this was done or before the old inscriptions were discovered by accident as for instance at Tiruppaḷṭurai (p. 140), Kōṇēriraḷapuram (p. 141) and Tiruviḍaimarudūr (pp. 161- 62). We suggest, therefore, that the renovation took place some time between A.D. 967, the year mentioned in the copied record of Kṛṣṇa III, and A.O. 990, the date of the Rājarāja I inscription. However, it can be even more precise, because extra niches have been cut out in the walls of the ardhamaṇḍapa, next to those for Gaṇeśa and Ourgā. According to Barrett the images in these added niches are examples of the third phase. This implies that they must have been added in the period in which the temple is supposed

been built. In that case we could expect a layout adjusted to the additional number of figures for which the villagers apparently had the financial means. Since this is not the case, we have to opt for a date in the early part of Uttama Coḷa, since it became customary to erect ardhamaṇḍapas with three niches in the delta from A.D. 970 onwards, a practice which was applied to the shrine at Vriddhāchalam not too far from Tiruvāṇḍārkōyil and built ca. 980. The Pañcanāḍīśvara, therefore, came into existence between A.D. 967-980. We shall return to this shrine when discussing the kāl.

The gradual development from the temple style dominated by the Pallavas into which is purely Early Coḷa can be observed most clearly in the monuments standing on the IA2a base. This sequence is illustrated in Fig. 44 (p. 221) and the left column of Fig. 46 (p. 227). It runs as follows:

Irāmattūr	→	Erumbūr	→	Grāmam	→	Bāhūr	→	Tiruvāṇḍārkōyil
IA		IA2a		IA2a		IA2a		IA2a
interrupted								
no vari		no vari		no vari		no vari		a Coḷa vari
holes in Vim.		holes in Vim.		holes in Vim.		holes in Vim.		holes in Vim.
but not in AM		but not in AM		holes in AM		holes in AM		holes in AM
A.D. 910		ca. A.D. 935		ca. A.D. 943		ca. A.D. 965		ca. A.D. 967-980

The development of the typical Coḷa base — illustrated in Fig. 45 and in the right column of Fig. 46, p. 227 — is disturbing in one aspect only: the presence of an uninterrupted vari on the Tirutiṇḍīśvara at Tiṇḍivanam built at the same time as the shrine at Kṭṭūr, which has the proper Coḷa vari, and after the shrine at Kiliyanūr from ca. A.D. 940, showing the same narrow fascia.

Tirutiṇḍīśvara at Tiṇḍivanam (Pls. 51 and 69a-b; appendix 13, no. 15).

The vari of this temple which runs on under the niches, is very old. Its ornamentation is even stranger. It has a pronounced vertical fascia decorated with a second-shaped motif. The lotus petals also obviously belong to another "family" than that used by the Coḷa sculptors (cf. Pls. 38c, 43c). Under the vari is a continuous series of charming panels which start on the southern side but stop half-way the western wall, as if the sculptor was interrupted in his work. All this stands on a IB1 adhiṣṭhāna which supports a II-3-b vimāna. In view of this layout, the attribution of Balasubrahmanyam merely on the basis of one Rājasekari inscription, is rather inconvenient (p. 136), since we assumed that this temple must have been renovated from the vari upwards. Recapitulating the extraordinary features of this monument, these are:

buildings was formerly called the Śivalokamudaya Paramaśvāmin and at one time renovated around A.D. 1000.

The presence of the vari along the walls of the monuments at Kīḷiyanūr, Tiṇḍivanam and Kīḷūr is problematic. These three temples were built before A.D. 960, i.e. more than five years before the shrine at Bāhūr which still has no vari. In contrast to the temples without vari which stand on the austere IA2a base, the three shrines with vari stand on either a lotus adhiṣṭhāna IIC (Kīḷiyanūr) or on a IB1 base and, moreover, have the full-fledged Coḷa niches (appendix 13). So in South Arcot we are confronted with two styles in the same area and the same period. The question then arises how long the Pallava influences were able to keep out the lotus vari from above the IA2a base, and the two extra niches from the walls. We shall also have to ask ourselves whether Balasubrahmanyam was right in stating that the monument at Tiruvāṇḍārkōyil on a IA2a base with a vari can be dated in ca. A.D. 922. We shall first look at this last problem.

The Pañcānāṣvara at Tiruvāṇḍārkōyil (Pl. 68a-b; appendix 13, no. 8).

This monument has a Coḷa design for it is a 1-2-b vimāna and part of a 1-B-11a. Balasubrahmanyam took the Parakesari mentioned in a record of the year 15 to Parāntaka I, whereas Barrett interpreted the year 14 of Parāntaka I mentioned in a record of Rājarāja I as a copy of an old inscription (p. 156). This explains why they attributed the temple to A.D. 922 and A.D. 990 respectively. In the same copied inscription in which Parāntaka I is mentioned, a gift is recorded of the days of Kṛṣṇa III or Kannaradeva. Barrett correctly deduced from the fact that an older shrine was renovated. However, he was wrong when he assumed that the decision about this renovation was taken in A.D. 990. From previous examples we know that old records were not necessarily re-engraved in the same year as the completion of the renovated temple. Occasionally it even took several decades before this was done or before the old inscriptions were discovered by accident as for instance at Tiruppaḷṭurai (p. 140), Kōṇērīrājapuram (p. 141) and Tiruviḍaimarudūr (pp. 161- 62). We suggest, therefore, that the renovation took place some time between A.D. 967, the year mentioned in the copied record of Kṛṣṇa III, and A.D. 990, the date of the Rājarāja I inscription. However, it can be even more precise, because extra niches have been cut out in the walls of the ardhamāṇḍapa, next to those for Gaṇeśa and Durgā. According to Barrett the images in these added niches are examples of the third phase. This implies that they must have been added in the period in which the temple is supposed

been built. In that case we could expect a layout adjusted to the additional number of figures for which the villagers apparently had the financial means. Since this is not the case, we have to opt for a date in the early part of Uttama Coḷa, since it became customary to erect ardhamaṇḍapas with three niches in the delta from A.D. 970 onwards, a practice which was applied to the shrine at Vriddhāchalam not too far from Tiruvāṇḍārkōyil and built ca. 930. The Pañcanāḍīśvara, therefore, came into existence between A.D. 967-980. We shall return to this shrine when discussing the kāl.

The gradual development from the temple style dominated by the Pallavas into one which is purely Early Coḷa can be observed most clearly in the monuments standing on the IA2a base. This sequence is illustrated in Fig. 44 (p. 221) and the left column of Fig. 46 (p. 227). It runs as follows:

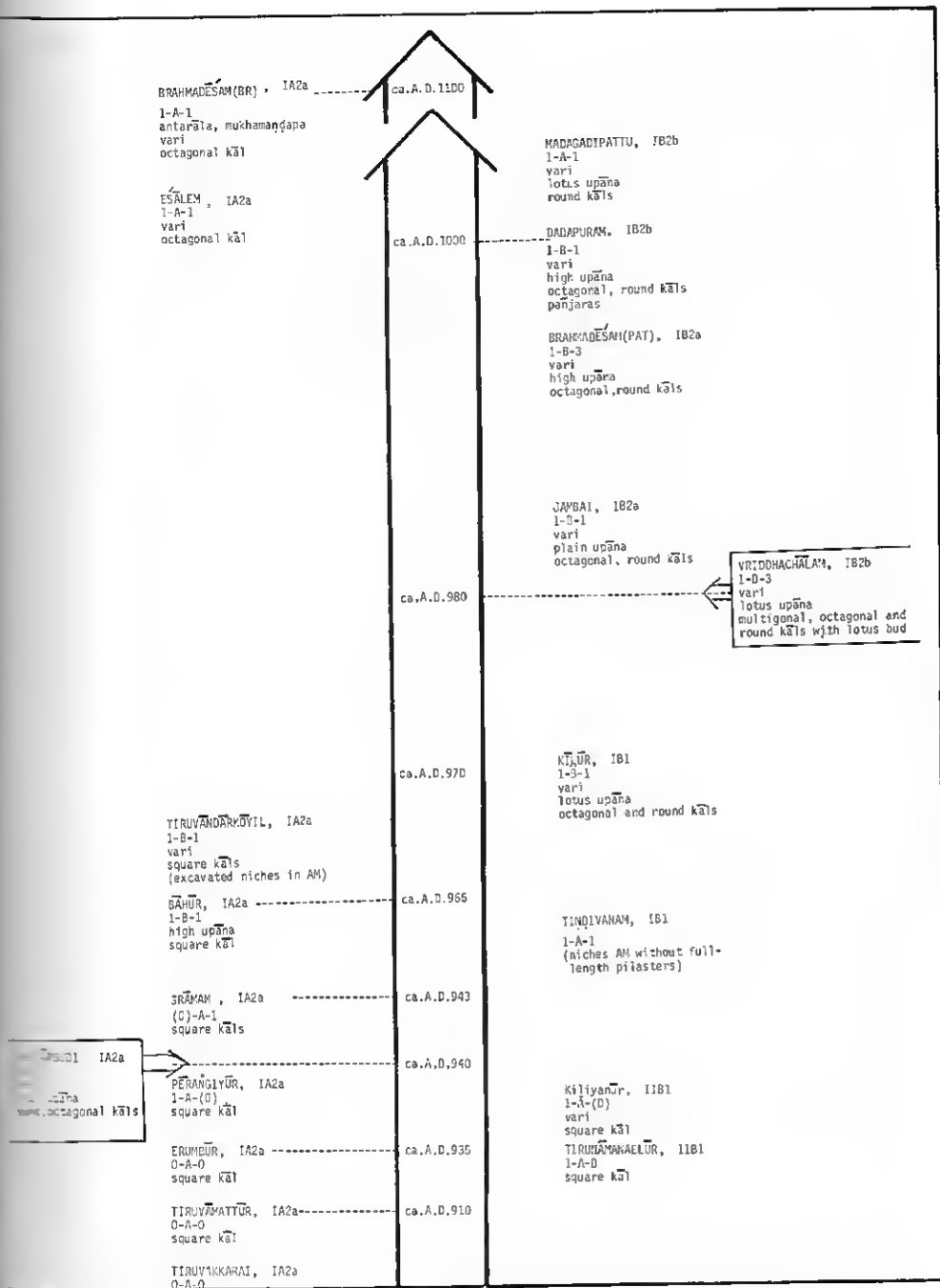
Irattūr	→	Erumbūr	→	Grāman	→	Bāhūr	→	Tiruvāṇḍārkōyil
		IA2a		IA2a		IA2a		IA2a
interrupted		no vari		no vari		no vari		a Coḷa vari
holes, but		holes in Vim.		holes in Vim.		niches in Vim.		niches in Vim.
as		but not in AM		niches in AM		niches in AM		niches in AM
A.D. 910		ca. A.D. 935		ca. A.D. 943		ca. A.D. 965		ca. A.D. 967-980

The development of the typical Coḷa base — illustrated in Fig. 45 and in the right column of Fig. 46, p. 227 — is disturbing in one aspect only: the presence of an uninterrupted vari on the Tirutiṇḍīśvara at Tiṇḍivanam built at the same time as the shrine at Kīlūr, which has the proper Coḷa vari, and after the shrine at Kīlīyanūr from ca. A.D. 940, showing the same narrow fascia.

Tirutiṇḍīśvara at Tiṇḍivanam (Pls. 51 and 69a-b; appendix 13, no. 15). The vari of this temple which runs on under the niches, is very old. Its ornamentation is even stranger. It has a pronounced vertical fascia decorated with a lotus-shaped motif. The lotus petals also obviously belong to another "family" than that used by the Coḷa sculptors (cf. Pls. 38c, 43c). Under the vari is a continuous series of charming panels which start on the southern side but stop by the western wall, as if the sculptor was interrupted in his work. All stands on a IB1 adhiṣṭhāna which supports a II-3-b vimāna. In view of this, the attribution of Balasubrahmanyam merely on the basis of one Rājāśrī inscription, is rather inconvenient (p. 136), since we assumed that this must have been renovated from the vari upwards. Recapitulating the extraordinary features of this monument, these are:

1. its II-2-3 vimāna which is an anomaly in South Arcot if it was raised in the middle of the 10th century (Fig. 27, p. 96);
2. its unfamiliar vari which is a regional aberration (map 10);
3. the superstructure which is plain, whereas part of the lower portion is beautifully decorated.

These facts indicate that the base of this koyil was built by people from outside the area and that they left in a hurry. The monument was only completed much later. In the middle of the 10th century, the obvious aliens in this area were the armies of Parāntaka I and Kṛṣṇa III. From the shrines at Erumbūr, runāmanallūr and Grāmam we know that at that time, temples were erected under the patronage of Parāntaka I or one of his generals, according to a delta idiom. So, we may safely assume that the initiative for the construction of the Tirutiṇḍīśvara was taken by Kṛṣṇa III, probably for the same reasons which prompted Parāntaka I to raise shrines in this area. It is known that between A.D. 940-950 or A.D. 945-955 this part of the Coḷa territory was controlled by Kṛṣṇa III. The records engraved on the monuments in this area during or after that period mention — rather arbitrary — either the regnal years of Kṛṣṇa III or of Parāntaka I, indicating that the district changed hands continually and that it was uncertain who exactly was ruling this region. This resulted in a chaotic enumeration of names and years when studied in time and space perspective. Under such conditions it is unlikely that the foreign architects remained in this area for a long period. They had probably left by A.D. 955 without having been able to complete their job. An indication that circumstances turned in favour of the Coḷas again, is the typical Coḷa layout of the shrines at Kīlūr and Bāhūr, raised between A.D. 960-980. Here the 1-B-1 type is introduced. The unfinished koyil at Tiṇḍivanam was probably completed at about the same time. However, the builders were forced to erect walls on a layout which was completely unknown to them. In addition, the ardhamanḍapa must have been too short to accommodate the niches customary in the Coḷa style. In order to decorate the recessed wall-space — inherent to a II-3-b vimāna — in a satisfactory way, they selected the pañjara which at that time had run its full course of development in the delta.⁹⁾ Moreover, they had to adapt the design of the pañjara to the short walls of the ardhamanḍapa. This reminds us of the situation at Pēraṅgiyūr, where the same unadorned niches were applied, i.e. half-size niches with pilasters without the proper frame of two full-size pilasters (p. 220). It is only in the koyils at Kīlūr and Bāhūr that we meet the full-fledged Coḷa style for the first time. We believe that the builders of the Tirutiṇḍīśvara would have used the same mature design if they had known it. Under the circumstances



5. Dual development of temple architecture in South Arcot in the 10th century. Pallava influence is illustrated by the preference for a IA2a base and the absence of niches and vari (left column). Cola influence is demonstrated by the introduction of adhiṣṭhānas belonging to types IB1, IB2a or IB2b, niches and a vari (right column).

they were forced by the already existing base and could only continue by erecting walls on this adhiṣṭhāna. The architect of the monument at Kīlūr and Bān on the other hand, simply carried out the customary Coḷa rules of architecture

This rather lengthy discussion of such a simple moulding as the vari is to be nevertheless extremely useful as we were able to establish a cultural clash effecting the style in this area. Furthermore, it became obvious that influences entered South Arcot only in the third quarter of the 10th century. We have illustrated this development in Fig. 46. The other monuments in this district are also included. Unfortunately, we cannot yet settle the problem of their dates, since they all have a vari and — except for the shrine at Eśālem — an adhiṣṭhāna of which the two lowermost layers represent the IB combination. So, in the paragraphs dealing with the upāna and the kāl we shall further discuss the monuments at Jambai, Eśālem, Madagadipattu and the Pātāleśvara at Maṇmadēśam. The Brahmeśvara at the same village was wrongly dated by Balasubrahmanyam in the reign of Rājarāja I, for it displays the style of Kulottuṅga I (A.D. 1070-1120). In some respects, however, it resembles the Śiva koyil at Eśālem. As such it can serve as a mirror to reflect the differences between both styles.

3.4.3. *The Palar region.*

There are only a few monuments without the typical Coḷa vari in the Palar region (map 10). When this type of vari is absent we are dealing with a Pallava temple (see appendix 15). However, the vari as a continuous moulding running along the entire length of the walls is another Pallava feature. The only non-Pallava koyil without a Coḷa vari is located at Mēlpādi (M), where the Somanātheśvara was renovated by the orders of Rājarāja I ca. A.D. 999 (Table D, 1). The Coḷeśvara at the same village was erected as a paḷḷippaḍai around A.D. 1000 with a vari and, in addition, a padmabandha on it. The construction of the Bilvanātheśvara at Tiruvallam (T) not far off, was completed before A.D. 985 and also has a vari, but without the lotus petals (see Fig. 47). This discrepancy can only be explained if we assume that the vari was optional in this area ca. A.D. 1000. However, we would rather believe that the Somanātheśvara is a scrupulous copy of the original shrine. This still leaves the question as to when the vari, interrupted by niches, was first applied in this old Pallava territory. The date of the Bilvanātheśvara is unknown. The Sokkeśvara at Kāñcī has a similar vari and was erected ca. A.D. 870 according to Balasubrahmanyam.

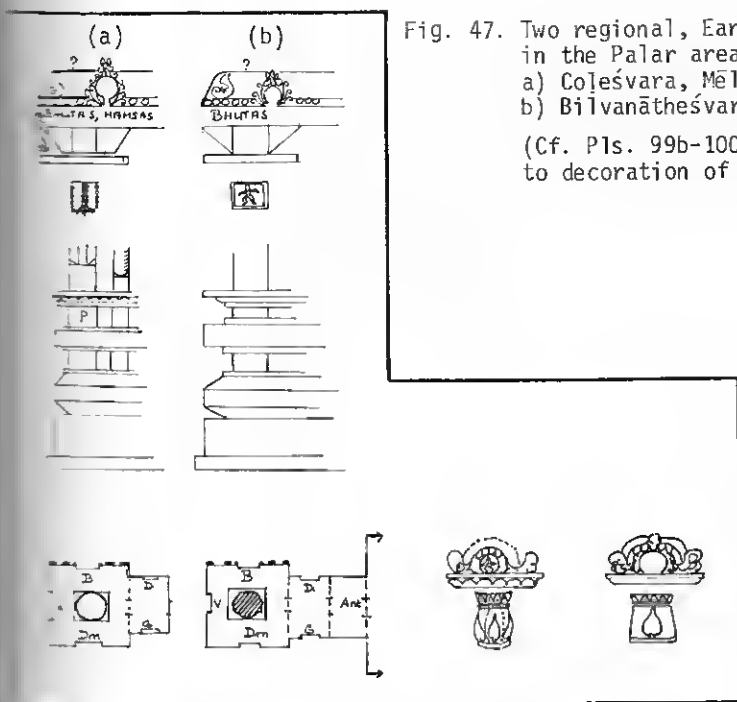


Fig. 47. Two regional, Early Coḷa variants in the Palar area.

a) Coḷeśvara, Mēlpādi;
b) Bilvanātheśvara, Tiruvallam.

(Cf. Pls. 99b-100 with regard to decoration of kāl.)

Additional evidence is absent, we can only base ourselves on the style which indicates that the temple was built at the earliest in the time of Rājarāja I. The supposedly older form of the vari, the so-called footboard vari (N in appendix 15), is present in the shrines at Takkōlam, Brahamadēśam, Tiruttāni, Veḷachchēri, and Tiruvanmiyūr. The first three monuments carry inscriptions dated before A.D. 900. All these temples have niches in the vimāna and in the ardha-mukha and must therefore be younger than A.D. 870, except the koyil at Takkōlam which has the unframed cut-out devakoṣṭhas. The late dates suggested for the small shrines at Veḷachchēri and Tiruvanmiyūr might indicate a stubborn, regional preference for the footboard vari (N), especially when this appears on a IA2a base. Although we have observed a rather slow appearance of the Coḷa vari (vI) in South Arcot, a different development in the Palar region should not be excluded. So we shall first review the monuments listed in Table D (p. 213) and indicated with N or simple v in appendix 15.

Jalanātheśvara at Takkōlam (appendix 15, no. 10).

The groundplan of the vimāna is a square as is the case of the other monuments

with an interrupted vari. The niches are of the "cut-out" variety and the is only interrupted between the second and third pilaster counting from the corner. Two records mention a regnal year of a Rājakesari. This must have been Āditya I, because they refer to high regnal years consequently they date A.D. 892 and 894. The stone kōyil must therefore have been in existence at that time. Apart from the ground-plan of the vimāna and the cut-out niches, the non-Coḷa characteristics are the fluted kumuda, the vyālis spaced according to the position of the pilasters, the round podigai consisting of a bundle held together by a median band, the lotus petals kept well under the palāṇi and the row of circles on the fascia of the kapota in between two small pilasters. Except for the bhūtagaṇas under the kapota, the enormous lion heads over the kūdus and the tiny vertical moulding over the ribs of the podigai, nothing reminds us of an early Coḷa building. In case this well-preserved monument is typical for the style prevailing in this region during the 9th century, it may mean that the bhūtagaṇas under the kapota, the siṃhamukha, and the moulding over the ribs in Coḷa architecture were copied from earlier temples in the area. The five cut-out niches containing images of Gaṇeśa, Dakṣiṇāmūrti, Brahmā and Durgā then indicate the advanced iconographical development in the Palar area in comparison with that in the Coḷamaṇḍalam.

The Candramoulīśvara at Brahmadeśam (N.A.) (appendix 15, no. 11)

This sandstone monument carries inscriptions from the days of Āditya I, the earliest one dating from A.D. 890. The building must therefore have been in existence before A.D. 890. It was never renovated and its style reminds us of Kailāsanātha at Uttaramallūr (A.D. 796-846), except that the latter displays an almost full-fledged niche, framed by slender pilasters.¹¹⁾ We are inclined to believe that the Candramoulīśvara represents a more developed stage in a process which started at Māmallapuram, i.e. the realization of the niche. Comparing the niches in the Kailāsanātha at Uttaramallūr with those in the Candramoulīśvara, we notice that the small base of the niche-pilasters in the former is connected under the niches in the latter, thus creating the foot-board variety. Since we do not know the decoration of the Kailāsanātha because the plaster on its brick walls has disappeared, we cannot be sure that the makaratorāṇa on the niche of the Candramoulīśvara is a new feature. The profile of its podigai is certainly is. It is slightly curved and has the vertical moulding. The building strikes us as an example of an independent regional style and of a period in which another solution was found for the niche-cum-vari problem more or less simultaneously in the Kāverī delta a few hundred kilometres further south. The architects of both areas tried to reshape the podigai and the niche, depart-

old Pallava concepts. Five niches seem to have been the northern norm.

Vīraṭṭaneśvara at Tiruttāni (Pl. 70; appendix 15, no. 12)

This shrine was built in or around A.D. 903, according to one of its records. It resembles the *Jalanātheśvara* and the *Candramoulīśvara* in many respects. It is the smallest of the three but it has the same simple, square layout. The complete *prastara*, including the corbel, is a copy of the *Jalanātheśvara*. The decoration of the *vari* is identical to that on the *Candramoulīśvara*. The *makaratorṇas* are all different and indicate an independent sculptural style. Apparently, the shape of this architectural detail had not yet been fixed. So we can conclude that thirty years after the first Coḷa architects had started to design a new type of temple in the Kāverī delta, none of the new developments had reached the northern province except that the inscriptions were now dated in regnal years of Rājakesaris and Parakesaris. This cultural isolation or regional independence, does not only apply to the Palar region, but also to South Arcot. Especially the presence and resemblance of the niches in the *ardhamanḍapa* at both North and South Arcot is striking. The full-size pilasters normally flanking the *prastara* are absent in the *Vīraṭṭaneśvara* as well as in the monuments at *Pēraṅgiyūr* and *Tiṇḍivanam* (Fig. 46, p. 227).

Daṇḍapāṇīśvara at Veḷachehēri (appendix 15, no. 13).

This shrine is dated wrongly by both Balasubrahmanyam and Barrett who attribute it to A.D. 961 on the basis of a vague record of Madiraikonda Rājakesari. However, the style of the sculptures was supposed to be that of the period of the great Coḷa. However, the temple as well as its images are too small for such a stylistic statement. The present, standing figures are squeezed into niches apparently meant for seated figures. The *makaratorṇas* are flattened under the pressure of the *uttira* over them in the same way as for instance in the shrine at *Kangavaram*, built in a period when the experiments with the *makaratorṇa* were hardly finished in the south. The corbels are identical to those at *Tiruttāni* and *Takkōlam*, and the same applies to the position of the *vari*. We, therefore, suggest that this *koyil* was, like the previous one, built around A.D. 900. Since the *Vīraṭṭaneśvara* at *Tiruttāni* has an elephant's back *śikhara* and the *Daṇḍipāṇīśvara* a square roof, we believe that the Rathas at *Māmallapuram* stood as a model for both shrines at least in the construction of their roofs.

Tripurasundara Amman shrine in the Vedapurīśvara at Tiruvarmiyūr (appendix 15, no. 14)

The layout of this vimāna and the foot-board vari of this temple are typical of the 9th century and give the building an older appearance than its actual date (A.D. 1017), mentioned in an inscription on the walls of this tiny monument. Its angular podigai is the only element in which it differs from the group of I-1-a/1-A-1 koyils built before the end of the 9th century or just around A.D. 900. We do not believe that the idea of the foot-board vari could persist that long, especially since the proper Coḷa vari was already applied on the shrine at Paramēśvaramaṅalam not far south of Tiruvanmiyūr. In view of the fact that the vari interrupted by niches was even adopted on the temple at Tiruvallam, located on the border of the Coḷa empire and definitely raised before A.D. 985, we may safely assume that the foot-board vari on the Amman shrine can be explained as an anachronism, for which we suggest the following solution. An Amman shrine can only be erected in the compound of an already existing Śiva koyil. The present Vedapurīśvara is a modern building. Because the Amman shrine existed already in A.D. 1017, an older Śiva koyil must have been located on the spot of the present Vedapurīśvara. The original Śiva shrine must have been similar to those at Takkōlam or Tiruttāni, and the architects of the Amman shrine must have copied the features of this older shrine thus creating a monument which no longer exists.

The Bilvanātheśvara at Tiruvallam (appendix 15, no. 16).

This building has the layout characteristic of the temples constructed in this region until the 11th century. It has a form which lies in between the temple at Tiruttāni and that of the Coleśvara, the paḷḷippaḍai at Mēlpādi. It differs from the first in the vari and the podigai. With the latter it has almost everything in common except the lotus petals on the vari, the shape of the kāl and the rearing vyālis on the paḷagais. The number of monuments with a 1A2a base interrupted, Coḷa vari is too small for another conclusion than that the Bilvanātheśvara was built between A.D. 900 and A.D. 1014.

The Sokkeśvara at Kāñcī (Pls. 71a-b; appendix 15, no. 24).

In view of the above it seems impossible to date the Sokkeśvara at Kāñcī — its fully developed Coḷa vari — as early as A.D. 870, as suggested by Balasubrahmanyam. We shall, therefore, now draw attention to some of its most remarkable features. This koyil has a I-1-b vimāna whereas the others belonging to the group just discussed all belong to type I-1-a. Moreover, its podigai is differently shaped, the profile of its kapota is curved, the band of circles adorning the kapota is carved on the slanting part above the plain vertical moulding,

makaratorāṇa over the vimāna niches is replaced by a kapota and there are kar-
ṇakūṭīs on the four corners of the grīvā platform as in almost all
rathas at Māmallapuram.

The presence of a Parakesarivarman record dated in the 15th regnal year
can best be explained by assuming that an old engraved stone was incorporated
into a more recent building. The inscription on the present walls of the temple
should definitely not be taken as a record of Vijayālaya. The appearance
of the Sokkeśvara strikes us as most original (Pls. 71a-b). As far as we know
the remarkable makaratorāṇas were never repeated in this or in any other area.
Basically, the differences can, however, be reduced to a few changes in the
podigai, the niche decoration, the profile of the kapota, and the application
of the lotus on the uttira. These aspects will be discussed in the last para-
graph of this chapter, for they are characteristic of monuments built in the
Middle Coḷa period. One aspect should, however, be pointed out here, viz. that
the building stands on an upāna. The shrines listed in appendix 15 can be di-
vided into two groups, the first consisting of temples without a proper upāna,
the second consisting of monuments standing on a raised platform or on a plate
decorated with lotus petals. The presence of an upāna in the Sokkeśvara seems
to coincide with the appearance of the T-shaped podigai in the Palar area.
Whether this is a characteristic combination of the entire region is a question
that will be taken up in the following paragraph.

4. Composition of the upāna

4.1 Typology.

The upāna is the plinth on which a temple stands. It is a thick layer placed un-
der the adhiṣṭhāna and is usually a few centimetres wider. The ground around
temples usually rose considerably in the course of time, and then the upāna was
the first layer to disappear from view. Consequently, it is often impossible to
determine whether or not a monument stands on an upāna. In itself this is not
disastrous, for in principle every shrine stands on such a plinth, but it is
important to know what it looked like. If it is a straight, undecorated granite
layer, or a row of bricks, it is of no interest. However, when it is decorated
it can be used to determine the age of the temple it supports, though only to
a certain degree as we shall see.

Appendix 5, aspect 2, gives the five upāna variants distinguished by 1. Apart from the distribution of the vari map 10 shows the upāna variants 2, 3 and 4. All temples not indicated by symbols representing these three variants, have either an undecorated upāna (variant 1) which is not included in map 10, or the plinth has disappeared into the ground.

Variant 2 is the Pallava upāna. The Pallava sthāpatis were the first South Indian architects who obviously enjoyed embellishing these uninteresting plinths. They literally raised the upāna to great heights and divided the central layer into panels, alternating with narrow strips of scrolls, as well as elephants and lions, which give the impression of carrying the building on their necks (Pl. 72). Variant 3 is an uninspired version of the Pallava plinth. It corresponds with version 2 in height and shape as well as in the division into panels, but otherwise it remains bare, except for a single panel on the corner. Variant 4 is a somewhat overdressed version of variant 1. Over the bare granitic plinth a padmabandha has been added, a phenomenon which always occurs in association with a lotus frieze above the straight jagatī. Variant 5 is a combination of variants 3 and 4 but it does not appear in Early Coḷa architecture. It occurs in monuments built after the death of Rājārāja I at Tirukkoyilūr (appendix 13, no. 24), Kāñcī and Tiruvadandai (appendix 15, nos. 25-26).

Since so many upānas are no longer visible, we cannot classify a particular building as an anomaly in a distribution-pattern. So, we shall only deal with those few temples of which the upāna is still visible.

4.2. Distribution of the upāna variants.

Variant 1 occurs everywhere, except in those areas indicated on map 10 with vertical lines. Variant 2 occurs only once viz. at Bāhūr (B) (Pl. 72c). The other examples of this type of upāna occur in Pallava monuments (Pl. 72d). The Kedareśvara at Uttaramallūr (U) also has this plinth, but with a typical Coḷa IIB1 adhiṣṭhāna over it. It cannot be asserted whether we are dealing with an old Pallava upāna on which a Coḷa base was placed later on, because the upper part of this koyil is new. In view of the fact that a lotus-base was applied for the first time under a shrine in South Arcot in A.D. 934, viz. at Tirunāmanallūr, it seems indeed likely that the Kedareśvara further north was renovated at least twice, first in the Early Coḷa period from the Pallava upāna upwards, and again in modern times from the Coḷa adhiṣṭhāna upwards (Pl. 72d). The high upānas under the temples at Dadapuram ((D) Pl. 72d), Tirumangalakudi and under the Amman shrine at Gaṅgaikoṇḍaḷapuram (G) — the last two north

undivided Kāverī and Coleroon respectively — are all decorated according to Pallava tradition.

The plain, high plinth, variant 3, occurs infrequently in each district; in the Kāverī from west to east at Goburapatti (Go), Kōvilāḍi (Ko), Tiruvaiyaru (Tv) (twice), Tiruvalaṅguḷi (Tg), Coḷapuram (C) and Tirukkoḷlikāḍu (Tk); in South Arcot in the Pātāleśvara at Brahmadeśam (B) and in the Viṣṇu Perumal at Tribhuvana (Tb); in the Palar region at Tiruvadandai (Tv), in the Tirucacchi-
ana shrine of the Ekambaranātha at Kāñcī, and at Kūḷambandal (K1).

Finally, variant 4 is mainly found in the centre of the delta, although there it must have been optional (appendix 12). Outside the delta it was used in the monuments at Kīḷappaḷuvūr (Ki) and Mēḷappaḷuvūr (M) near Kilai-
r. in the Melakkadambūr at Nārttāmalaī (Na), and at Udayiārgudi (U), Vriddhācha-
r (V), Jambai (J), Kīḷūr (K), Madagadipattu (M) and Tiruvakkarai (Tk), all dated in South Arcot. In the Palar region this type of upāna was also common, as it is found in the koyils at Kāvanṇandālam, in the Sokkeśvara at Kāñcī, at Tiruvoyyūr, Tirumaliśai, and at Tirumullaivāyil (appendix 15). Variant 4 was applied for the first time under one of the Sapta Sthānas, i.e. at Tiruch-
aturai (A.D. 883, Fig. 39, p. 208). It was used incidentally under shrines built between A.D. 900-970 and became popular towards the end of the 10th century (ap-
pendix 12). It cannot be used as a criterion for dating temples, since the only conclusions that can be drawn from the above are that the concept existed since A.D. 883, and that the decision whether or not to apply it depended on the ar-
chitect.

As to the occurrences of high plinths (variants 2 and 3), the possibility can-
not be excluded that all vimānas on a flat upāna are placed on a raised platform
no longer visible. Since this complex moulding belongs to the Pallava idiom and
since both the 9th century buildings in the Coḷamaṇḍalam and those raised after
A.D. 990 show Pallava features, it is risky to suggest a date of a koyil on the
basis of its platform moulding. This all the more so as the shrine at Tiruppurambyam
displayed a rather nicely decorated high upāna under its pañjaras (Pl. 40) as early
as A.D. 910-925 (pp. 121-23, appendix 8, no. 3). Problematic monuments on a high
plinth in the Kāverī area are located at Kōvilāḍi and Tirukkoḷlikāḍu. All other
shrines can be firmly dated after A.D. 990. We shall review these two buildings
after we have dealt with the monuments on a high upāna in the other districts
(appendices 13 and 15).

Before starting our discussion of the upāna variants 2 and 3 we should like
to pay attention to the elephant's back at Tiruppachchiyūr. It stands on a plain,
on upāna (variant 1). It could, therefore, be older than the other monuments

in the Palar region with lotus upānas. However, inscriptional evidence seems militate against this early date so a careful review of its ornamental features in relation to those of the other shrines seems to be appropriate.

4.3. Chronology of some temples based on the shape of their upāna.

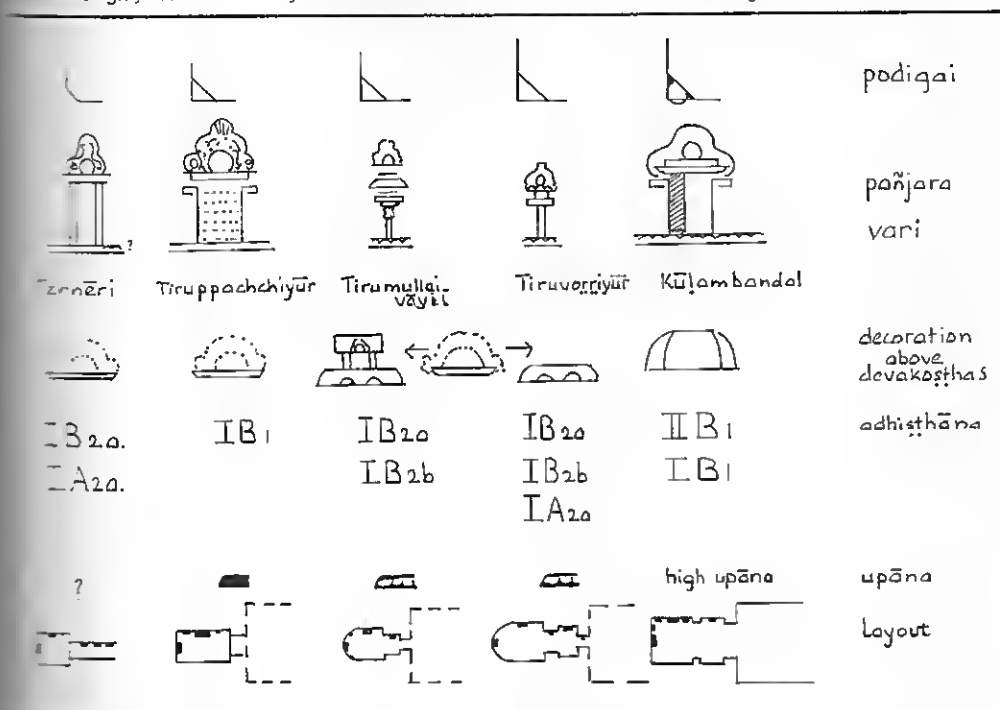
The Vāceśvara at Tiruppachchiyūr (appendix 15, no. 30).

We shall discuss the Vāceśvara in relation to four other shrines. These are in the first place the monuments at Tennēri (no. 17) and Kūḷambandal (no. 18) because all three have two special features in common, viz. there are lateral niches on either side of the central koṣṭhas of the vimāna and the vari is interrupted by these lateral niches.¹²⁾ The other two koyils, at Tirumullaivāyil (no. 31) and Tiruvorriyūr (no. 27), were selected because they are located near the Vāceśvara and because all three temples are tritalas with at least one apsidal component in the structure of their vimānas.

The Vāceśvara at Tiruppachchiyūr is crucial in demarcating the transition of the Early Coḷa style into that of the so-called Middle Coḷa period, for Kaṇḍaliśvara at Tennēri is still designed according to the Early Coḷa, - Śembyan Mahādevī idiom (A.D. 995), and the Gaṅgaikoṇḍacoḷeśvara at Kūḷambandal on the other hand, represents the Middle Coḷa style since it was built during the reign of Rājendra I (ca. A.D. 1034). From appendix 15 it can further be concluded that the monuments at Tirumullaivāyil and Tiruvorriyūr also have been drawn into the discussion, because they are supposed to have been raised during the same period (A.D. 995-1034). The first is thought to have been completed in the early days of Rājārāja I.¹³⁾ The latter was, however, designed in the days of Rājendra I, but when exactly is not known, as the inscription mentioning the construction of the shrine keeps silent about the year, though it is very explicit about the architect and the building materials used.

In Fig. 48 these five monuments have been arranged according to the principle of an increasingly complex layout. The Vāceśvara at Tiruppachchiyūr is a rather spectacular building. Its ground-plan is rectangular, its superstructure apsidal and two storeys high. The architect had to solve the problem of how to divide the relatively long walls of the first tāla supporting the apsidal roof, while the sthāpatīs of the monuments at Tirumullaivāyil and Tiruvorriyūr had to solve the problem of how to divide the apsidal wall of an apse back in a satisfactory way. The architect of the Vāceśvara chose the bhūṣaṇa niche, a concept frequently found in temples constructed in the Kāverī caṇṇa (cf. the ardhamāṇḍapa of the Gomukteśvara at Tiruvādūtūrai and the Uttara-

at Tiruvaiyāṇū). This concept was in due course complemented by a new design, applied on the walls of the Rājarājeśvara at Tañjāvūr (Pl. 73), viz. the pañjara consisting of a single pilaster placed in a kumbha or large pot. Mention this because the architects of the two elephant's backs resorted to this ornament when decorating the otherwise empty wall-spaces in the recesses, though they forgot (?) the kumbha or pot. This seems indeed the easiest way though, in a sense, it is a deformation of the formerly blind niche.



48. Tentative chronological sequence of large vimānas in the Palar region built between A.D. 995 - 1034.

view of this reduction of the blind niche into a solitary pilaster, the Vā-ara must be older than the nearby apsidal vimānas. An inscription on a in the pavement of the compound, dated in A.D. 1014, indicates that renovation must have taken place after this year. Balasubrahmanyam assumed that this opened during the reign of Rājendra I, although the oldest record on the walls of the present building dates from A.D. 1070. Its information is of a tax-technical nature only. A reconstruction of the temple could then have occurred between A.D. 1014-1070. The modesty of the local inhabitants of Tiruppachchiyūr

not to report this fact may be commendable, but it is unfortunate for us, since we should like to prove that, at least part of the present building was completed before A.D. 997, a year mentioned in a second inscription on the slab referred to above. The only possible answer to this problem is that the old Rājāśvara records were engraved on the walls of the ardhamaṇḍapa or the mukhamaṇḍapa which must have collapsed in the course of the 11th century.¹⁴⁾

As mentioned before, this temple is striking because of the presence of a *vari* under the lateral niches, a feature which it has in common with the monuments at Tennēri (no. 17) and Kūḷambandal (no. 29). At Tennēri the lateral niches are so narrow and shallow that we would rather call them *pañjaras*, although the part over these *pañjaras* corresponds completely with the usual *makaratorṇas* which normally crown the niche (Fig. 48). At Kūḷambandal, on the other hand, the lateral niches are sufficiently deep and undoubtedly all contain images. The *Vāceśvara* at Tiruppachchiyūr shows a kind of intermediate form where the lateral niches are wide, but so shallow that they were used for inscriptions.

In the second place, we noticed a consistent preference for the IB base-combination in several wall segments of the five temples under discussion. These two layers do not occur in any other shrine in the Palar region except for the bonafide Pallava monuments (cf. map 7 and appendix 15), and are present in almost all temples in the delta built after A.D. 1000 (appendix 12).

A third interesting aspect is the decoration above the niches. At Tennēri and Tiruppachchiyūr we find the ordinary *makaratorṇas*; at Tirumullaivāyil and Tiruvorriyūr both the *makaratorṇa* and the *kapota*, eventually crowned by a *śikhara* were used. At Kūḷambandal we observed the canopy for the first time, admitted only above the niche of Dakṣiṇāmūrti.

A fourth point is the absence of a high *upāna* or a lotus plinth in the *Vāceśvara*, whereas the *koyils* at Tirumullaivāyil, Tiruvorriyūr, Kūḷambandal and most later shrines have this plinth (appendix 15).

The most remarkable feature, however, is the changing shape of the *torṇa*. While still angular at Tennēri, it becomes a regular T in the three tritaṇas which is finally carved into a kind of drop at Kūḷambandal. Although this is not the right place for a discussion of the *podigai*, it is obvious that such an important change in the shape of the corbel, could hardly have been invented in the outlying provinces. Indeed, the T-shape appeared in the delta for the first time above the pilasters of the Rājārājeśvara at Tañjāvūr (Pl. 73). This *koyil* was inaugurated in the twenty-fifth regnal year of Rajaraja I, i.e. 1010.¹⁵⁾ It is not known when the first blue-prints were drafted, nor when

ation stone was laid (pp. 165-67). If the first tala of the Vāceśvara was built with the T-shaped corbel ca. A.D. 997, the construction of the Rājāśvara must have been in full swing around that year. This does not contradict our statement in the previous chapter (p. 166), that after A.D. 985-990 labour-force must have been pressing for work in the delta, causing Rājāśvara to commission a worthy project. We shall return to this point in the paragraph dealing with the podigai.

So, there are four arguments to date the Vāceśvara around A.D. 995. In the first place, the T-shaped podigai on the first tala tallies with the developments in the delta before A.D. 1000. Secondly, the absence of any experiments with the niches points to a building period preceding the reign of Rājendra. Thirdly, the IB1 base is an indication that the Rājarājeśvara, or its preprints, were the source of inspiration for the architect of this koyil. In the fourth place, the absence of the lotus upāna still links the building to the older monuments in this region. The second point can be used as an argument against the dating of the temple at Tirumullaivāyil around A.D. 983, a building which we shall now discuss.

Śrī Maṣilamanīśvara at Tirumullaivāyil (Pl. 74; appendix 15, no. 31).

In contrast to the previous temple, this koyil has a beautiful finish. In some respects the style of this monument indicates an early date, as suggested by Subrahmanyam (p. 324, note 13), but in other respects it does not.

Its base is not typical of this region, but characteristic of the koyils built by Śembyan Mahādevī (cf. appendices 12 and 15), which also show the combination of two variants in one building (cf. Tiruppugalūr, Tirumiyachchūr). A second characteristic of the temples in the delta which the shrine at Tirumullaivāyil displays, is the application of the octagonal and the round kāl next to the square shaft (map 11). In the third place the Śrī Maṣilamanīśvara shares with them the presence of sculptures next to the main devakoṭṭhas (map 13).

On the other hand, the T-shaped podigai is definitely not a hall-mark of the Śembyan Mahādevī style, nor is the kapota over the Dakṣiṇāmūrti niche, covered, moreover, by a śālā. The solitary pilaster crowned by a kapota-cum-pilaster is also a feature alien to her style. Now the kapota itself is an element present on nearly all Pallava monuments in one place or another, usually on the walls of the superstructure, where they function as a canopy over the niches in the śālās and kuṭīs.

The preferential treatment of Dakṣiṇāmūrti — the only sculpture under a similar canopy in the Śrī Maṣilamanīśvara — must have been a new and strictly

regional phenomenon in the Palar area, indicating a special attachment to the "God of the South" which seems to have spread gradually throughout Tamil Nadu. Nowadays, the fine features of many monuments have been destroyed by this originally simple projection which developed into an ugly portico. We have not noticed that this preference was already felt by the people in the delta during the reign of Rājarāja I. On the contrary, the Amman shrine in the compound of the Gaṅgaikoṇḍacoḷeśvara at Gaṅgaikoṇḍaḷapuram demonstrates the opposite (Pl. 19a), for the kapota is here applied over the lateral niches in the wall of the ardhamandapa. So we are inclined to interpret the origin of the kapota over a niche as the result of an explicit, regional adoration of a particular deity in the Palar area. In the same way, we hardly find Liṅgodbhava images placed in niches of temples located in the Palar region, although it must have been an extremely popular manifestation of Śiva in the delta during the 10th century. As Dakṣiṇāmūrti was apparently not very popular in the Deep South, it is not surprising that kapotas are absent over his niches.

Another peculiarity of the koyil under discussion is the single pilaster carrying a kapota and over it a kūdu. This shape could be due to a shortage of wall-space. Plate 74 demonstrates that the two pilasters required for a paṇḍita could never be placed between the full-length pilasters. As such, this phenomenon must be considered a playful preference in combination with inspiration from nearby older examples, or to a structural limitation. We now have to decide whether or not this koyil is a monument from the days of Rājarāja I. An inscription of A.D. 1015 on a pillar in the mukhamandapa states that the hall in question was built by Rājendra I. The vimāna must, therefore, have been in existence in that year. The lapse of time between the first endowment in A.D. 983 by Śembyan Mahādevī and the completion of the mukhamandapa in A.D. 1015 can be explained. For, in A.D. 983 it is stated that Śembyan Mahādevī had bought some land and had donated it to the temple. Since this record was only engraved at a later time (p. 234, note 13), we may assume that it took some years before the transaction had been settled. Furthermore, we are nowhere told that the queen had also given money to build a new shrine. It could well be that funds had to be provided by the proceeds of the recently acquired lands.

Another problem could have been that insufficient workmen were available in this area where building activities had been at a standstill for almost a century. Skilled craftsmen had to be provided by the queen's workshop or had to be trained first in the delta. Around A.D. 983 her atelier was fully employed (p. 160) so it is unlikely that a group of men was sent to the border region. Ten years later, however, a shrine displaying the Śembyan Mahādevī style was

built at Tennēri, while the koyil at Tiruppachchiyūr was probably constructed a few years afterwards, in which the new ideas produced in the blue-prints of the Rājarājeśvara were already incorporated. On the basis of these two buildings we may conclude that skilled craftsmen were now once more available in the Palar region. Therefore, the Śrī Masilamanīśvara could well have been built between A.D. 1000-1015. The shrine at Tiruvorriyūr is an almost true copy, indicating that the workmen were immediately employed again. It was, therefore, probably constructed between A.D. 1015-1020.

Varāha Perumal at Tiruvadandai (appendix 15, no. 26).

In the preceding we have noticed that certain ideas originating in the delta, were either not followed up, or needed time to reach the outlying provinces. In the lotus plinth precedes the design of the bare, high upāna in the delta, we may assume a similar sequence in the Palar region. The relatively late shrines at Tiruvorriyūr and Tirumullaivāyil stand on a lotus plinth. The architect of the Varāha Perumal exaggerated slightly by designing a high upāna of which the lowermost layer received the padma decoration. Another feature which the Perumal has in common with the two koyils just mentioned is the T-shaped sigai, which is a direct imitation of that invented for the Rājarājeśvara at Tējjāvūr. This implies that indeed all these shrines must have been constructed around A.D. 1000 or later. On the other hand, the Varāha Perumal could have been renovated from the uttira upwards, since roofs are prone to collapse. In that case the underlying parts, including the upāna, could be older.

The shrine has an awkward finish, from which nothing can be concluded. Nevertheless, we believe that the Perumal was not renovated, in view of its II-3-b layout which was dormant in the delta for a long time (Fig. 25, p. 92). It only returned with the construction of the shrine at Tirukkaḍaiyūr (A.D. 986-990). Leaving aside the Cāḷukya Tirutiṇḍīśvara at Tiṇḍivanam, the two temples at Dadapuram are the first examples of a reviving interest in this type of layout in South India (Fig. 27, p. 96). In the Palar region the only monuments displaying the II-3,4-b design are the temples at Tennēri of A.D. 995, the upāna of which is not visible, that at Kūḷambandal of ca. A.D. 1034, which has the same bare plinth as the Perumal, and those at Tirumullaivāyil and Tiruvorriyūr, both with a lotus upāna and built after A.D. 1000.¹⁶⁾ These four buildings do not only resemble the monuments at Dadapuram raised before A.D. 1006, but also the temple at Accurapatti of A.D. 990. A migration effect, i.e. a retardation of the new developments in the design of plinths as a consequence of distance, seems therefore likely. However, in that case we have to reject the views of Balasubrahma-

nyam. According to him this Perumal at Tiruvadandai belongs to the days of the great Cola. His opinion is based on inscriptions mentioning various names of an unknown prince, called Parakesarivarman alias Pārthivendravarman who took the head of Vīra Pāṇḍya. Two more titles (or other princes?) are recorded: Parakri Vēndradhivarman and Ko-Pārthivēndradhivarman, who might have been a prince of the royal family and viceroy of Tōṇḍaimaṇḍalam, engaged in efforts to recover the northern part of the Cola empire in the days of Sundara Cola. This assumption is based on the epithet "who took the head of Vīra Pāṇḍya" and furthermore on the presence on the base of a record from the 20th regnal year of Kṛṣṇa III or Kannaradeva, i.e. A.D. 959. This was a time of war, as is clear from the inscriptions, not exactly a period in which the construction of a large II-3-b vimāna could be expected. From A.D. 969 onwards a few even larger vimānas were erected in South Arcot which must have been liberated earlier than the regions further to the north. All these shrines, including that at Paramēśvaramaṅgalam not far south of Tiruvadandai, have the 1-B-1 design. So, even when we assume that an old koyil was completely rebuilt not long after the war, we can only expect the II-2-b/1-B-1 layout, since that was the common type of the days. The monuments at Kīlūr, Tiruvāṇḍārkōyil, Paramēśvaramaṅgalam and Bāṭhali confirm this statement, albeit that the vimāna design of the last is even simpler (appendix 10). Assuming a reconstruction of an older Perumal, we suppose that the koyil was probably renovated in the 11th century, i.e. in the days of Rājendra I at the earliest. 17)

The Tiruvacchimayana shrine in the Ekambaranātha at Kāñcī (appendix 15, no. 15). As far as we know, no inscriptions referring to this monument have come to light. There are a few records on the main temple but this is a modern building. So we visited this subshrine more or less by accident when we went to inspect the inscriptions on the main koyil. As in the case of so many other monuments, this copied subshrine on its high bare upāna, also creates the impression of being a brand-new imitation in spite of its composition and details which show the Early Cola idiom. It was obviously built after it became customary to erect sanctuaries dedicated to lesser deities in the compound of the main shrine, after the reign of Rājārāja I. Although it was an ancient practice to construct chapels for the aṣṭaparivāradēvatās or the saptamātṛkās long before the Colas came to power in the Muttaraiyar area, it should be remembered that these were tiny buildings. However, after Rājārāja I full-size sanctuaries for other deities were built in the compounds and, as such, this should be considered a new practice. We shall return to this shrine when discussing the podigai.

Pātāleśvara at Brahmadeśam (S.A.) (Pl. 75; appendix 13, no. 19).

This is a 1-B-3 structure on a high plinth, a combination of which there is only one other example in South Arcot, viz. the Vṛddhagiriśvara at Vṛddhāchalam (no. 18). However, the two buildings cannot be compared, for the quality of their finish differs too much (cf. Fig. 41b, p. 211). It would be like comparing an exquisite drawing-room chair with a rough kitchen-stool, for the Pātāleśvara possesses the refined touch of the talented delta sculptors, who fashioned the temple at Vṛddhāchalam into such a striking monument. So from this point of view, the two monuments cannot be contemporary. However, in view of its layout, the Pātāleśvara cannot be older than the Vṛddhagiriśvara, as the concept of an ardhamaṇḍapa with three niches had at that moment hardly existed more than ten years and was always used in combination with the simple I-2-a vimāna (Fig. 35, p. 160). So the problem can be reduced to the question how much younger this monument could be. Since it stands on a bare plinth similar to that of the shrine at Kourapatti (ca. A.D. 990; appendix 12), where it might have been introduced for the first time, the Pātāleśvara could be dated after A.D. 990. Further, its rather large ardhamaṇḍapa narrows down the period to the last ten years of the 10th century, for we have noticed a tendency to reduce the size of the vestibule both in the delta and in the Palar region (Figs. 35 and 48) around the turn of the century. The two temples at Dadapuram, built before A.D. 1006, both having only one niche in the ardhamaṇḍapa, seem to indicate that in South Arcot, the ardhamaṇḍapa also became smaller. In our opinion it is unlikely that the architect of the Pātāleśvara would have deviated from such an obvious trend in the architectural development. So, we date this plain koyil between A.D. 990-1000.

The Varadarāja Perumal at Tribhuvana (Pls. 76a-b; appendix 13, no. 23).

Apart from the fact that this temple is a sāndhāra monument it is also remarkable on account of its layout. The walls of the ardhamaṇḍapa pass unnoticed into those of the vimāna without a false antarāla and the width of the hall corresponds with that of the vimāna. A further peculiarity is the absence of niches. The building shares all these features with the shrine at Pennadam (Pl. 77; no. 10) not yet discussed. The complete darkness which would have prevailed in the ambulatory gallery of this Viṣṇu temple, is slightly relieved by a few small holes in the walls through which some light enters. In the monument at Pennadam these holes have become full-fledged windows similar to those in several Cāḷukya monuments (Pls. 5-9). These windows are placed in a projecting part of the wall. The whole concept strikes us as more mature than that at Tribhuvana.

Inscriptions dating from the twelfth regnal year of Rājarāja I (i.e. 997) were found on slabs in the compound of the Perumal, but the earliest record on the temple walls dates from the fifth regnal year of Rājendra I. This implies that the monument was raised before ca. A.D. 1017 or A.D. 1019, depending on the question in which year the reign of Rājendra I is considered to have started, for he was made co-ruler in A.D. 1012 and became king in A.D. 1014. It seems to us that another building containing the slab with the record of Rājarāja I of A.D. 997 was taken down after that year in order to create space for the Perumal.

The Perumal has an extremely high upāna on which a beautifully decorated lotus adhiṣṭhāna is placed. On account of the height of the upāna, panels have been inserted between the vari and the vyāli frieze at eye-level. Perhaps these panels were meant to have the same educational value as the devakoṣṭhas and karatorāṇas which are absent in this case. The bareness of the walls could possibly be explained by inability on the part of the sculptors to decorate such a very large vimāna — the first sāndhāra in the Coḷa territory after the Korānātha at Śrīnivāsanallūr (A.D. 875-880). On the other hand, Vaiṣṇava iconography may not yet have been sufficiently developed to fill the wall space with an adequate number of images, since Vaiṣṇavism was still a religion of minor importance in those days. (Cf. note 17, p. 318.)

Whatever the reason for the absence of sculptures may be, the quality of the small panels links this monument with two others, located at Puñjai and Tiruveṅkādū (appendix 11, nos. 25 and 27 respectively; Pls. 60a-b, 78a-b) and rebuilt in the days of Rājarāja I. All three koyils have vyāli friezes showing the unusual combination of galloping elephants and long-nosed lions, which in the case of the Perumal alternate with seated lions and animals with human faces.¹⁹⁾ The panels on the Viṣṇu temple in which temples are depicted, show the same peculiarities as displayed by the panels on the other two koyils. Since the rest of the Perumal is plain and unadorned we are inclined to assume that the artist of the shrines at Puñjai and Tiruveṅkādū was asked to add some spirit to the otherwise deadly appearance of the building. Earlier on we suggested that the temple at Tiruveṅkādū was completed between A.D. 990-1000 (pp. 184-85). The building history of the Perumal suggested above seems to suit this date. The proposed year of construction of the Naltunai Īśvara at Puñjai between A.D. 990-1000 also corresponds with the assumed activities of the work-artist at Tribhuvana (pp. 182-83). On studying the sculptures on the shrines at Tribhuvana, Tiruveṅkādū and Puñjai we observed the same workmanship as on the renovated shrine at Vēdāranyam (appendix 11, no. 29, Fig. 54c, p. 305). Here ancient

inscriptions were removed from the walls and copied on the pillars surrounding the temple. They are dated as late as A.D. 1007. So, the renovation of this shrine probably took place after A.D. 1007, and was carried out by the same workmen as at the three monuments just discussed. In view of all this the four sanctuaries are closely related in style and date from about the same period.

The *Śiva koyil at Kōvilādī and the Agnīśvara at Tirukkoḷḷikkāḍu* (Pls. 80-81). Both these temples were renovated and placed on a high plinth. This happened at a much later date than generally suggested (appendix 9, no. 26; appendix 11, no. 28). The *Śiva koyil* is supposed to date from the middle of the 10th century. In view of its I-A-1 lay-out and — even more — its Muttaraiyar-like I-1-a vimāna a reconstruction around A.D. 950 is only possible if we assume that the architect tried to build a faithful copy of an older, collapsed shrine. However, in that case the shrine should not have been placed on a plinth, and the pilasters should not have been octagonal as was customary in the style of the Muttaraiyars (map 11). If the renovated temple cannot be a copy of an older one, at least a I-B-1 layout could have been expected around A.D. 950 (appendix 10), or more likely it should have had the same characteristics as the neighbouring and contemporary shrines at Tirukkaliṭṭattai and Tiruppalturai, both without an upāna (Pls. 54 and 56; appendix 9, nos. 19 and 21). This suggestion seems to be confirmed by the appearance of the *koyil* at Tirukkoḷḷikkāḍu, which is also a I-1-a/1-A-1 building on a high plinth. Its oldest inscription dates from A.D. 1006.

This last shrine must have been renovated in the course of which its size was considerably reduced, since the inscriptions have been copied in such a way as to make the epigraphist shake his head, for many were misplaced or became incomplete. The records of Kulottuṅga I (A.D. 1070-1120) were also mutilated, for they miss their florid introduction due to want of space. The building at Tirukkoḷḷikkāḍu, therefore, was obviously renovated after the Kulottuṅga I records were engraved. Since the *Śiva koyil* at Kōvilādī shares the high upāna and its layout with the shrine at Tirukkoḷḷikkāḍu — and displays the same coarse finish — it must also have been reconstructed in the last quarter of the 11th century at the earliest.

From the above discussion it became clear that our assumption with regard to the late introduction of the high upāna in Coḷa architecture is confirmed by additional, structural evidence. As we suggested that the appearance of the kāl

—whether or not in combination with panels — is part of this evidence we now turn our attention to these aspects, which show a strong regional preference for special shapes and combinations of shapes.

5. Composition of the kāl

The kāl or pilaster consists of many parts as aspects 10-18 of appendix 5 show. During the entire Early Coḷa period the upper elements are consistent in form. Only the shape of the shaft and the padma between the palagai and the kumbha together called idaḷ or munai — show variation. The remaining parts only vary in their decoration. These aspects cannot be mapped because decoration depends on the assignment which a sculptor did or did not receive. Moreover, it is often completely obliterated due to frequent plastering or by the wear and tear of time, which gnawed away large chunks. So, we shall only pay attention to the distribution-patterns of the contours of the kāl and the occurrences of the whether or not carrying blocks depicting nāṭṭya-peṇs or vyālis.

5.1. Typology. 20)

The shaft always stands on a square pedestal. This does not look like an individual element when the pilaster is square, but when it is round, octagonal or polygonal, the pedestal definitely gives the impression of being an independent element. The square kāl was invariably applied by the Cāḷukyas and Pāṇḍyas. The octagonal kāl was frequently used by the Pallavas in addition to the square and the Early Coḷas used the round and polygonal shape as well as the square and octagonal pilaster (Fig. 49). The round or polygonal pilaster is typical of Early Coḷa architecture at least when applied to the exterior of buildings (see appendix 3, Fig. b and map 11). In view of the predominance of the square kāl on temple walls throughout South India preceding the rise of the Coḷas, the introduction of the round and octagonal shape seems an innovation. However, the square, octagonal, round and polygonal pillar is a common feature inside the śaiva dāpas at for instance Paṭṭadakkaḷ or Māmallapuram. Apparently, the Coḷas were the first to apply all four shapes as pilasters.

It should be pointed out that the application of a polygonal or a round kāl occurs always in combination with a square shaft and often with an octagonal pilaster. The shaft types can vary in one and the same temple. This can

explained by the fact that a distinction is usually made between the pilasters in the ardhamandapa — mostly square — and those on the vimāna which can be subdivided into corner-kāls, half-niche pilasters and other kāls occurring elsewhere on the wall.

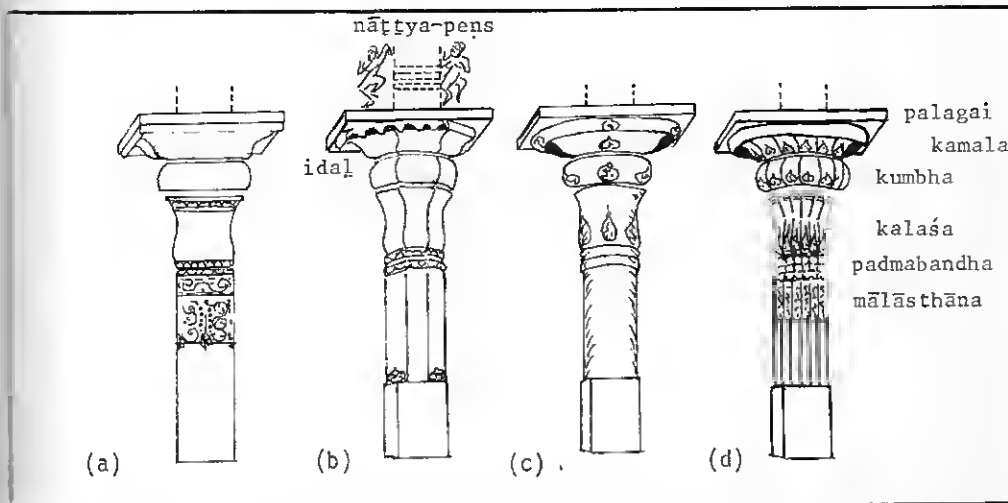


Fig. 49. Four types of Early Coḷa kāl. The Coḷa kāl is characterized by a pronounced, ogeed kalaśa and a constriction of the shaft by means of a padmabandha.

- a) square from base to palagai;
- b) octagonal between square base and palagai;
- c) round between square base and palagai;
- d) polygonal between square base and palagai;

In addition there exists a mixed form when the kāl is divided into square base, octagonal shaft, polygonal kalaśa, round kumbha and kamala.

5.2. Distribution of the kāl variants.

5.2.1. The Kāverī area.

Map 11 shows that Early Coḷa architecture is characterized by the octagonal kāl and occasional occurrences of round and polygonal shafts. Square pilasters are common in the area south of the Sapta Sthānas; to the east of this group we occasionally find temples with square kāls, viz. at Gaṅgaikoṇḍaḷapuram (G), Kumbakonam (K), on the renovated monuments at Kōyildēvarāyanpēṭṭai (KP), Tirumayānam (T), Tiruveṅkāḍu (Tv) and Vēdāranyam (V) (cf. appendix 12, and Table E).

On the basis of this pattern there are two alternatives. In the first place, it could be that the entire Pāṇḍya-Irukkuve]-Muttaraiyar region, characterized by the square kāl, was eroded by the attractive force of the octagon,

creating patches of small areas with a square kāl along the Kāverī. This interpretation would imply that all temples with square pilasters in these areas are older than those with the round or octagonal shafts. The alternative view is that the architects of Āditya I could choose between the square kāl, common in the adjacent areas, and the less current Pallava pilaster with its octagonal cross-section.

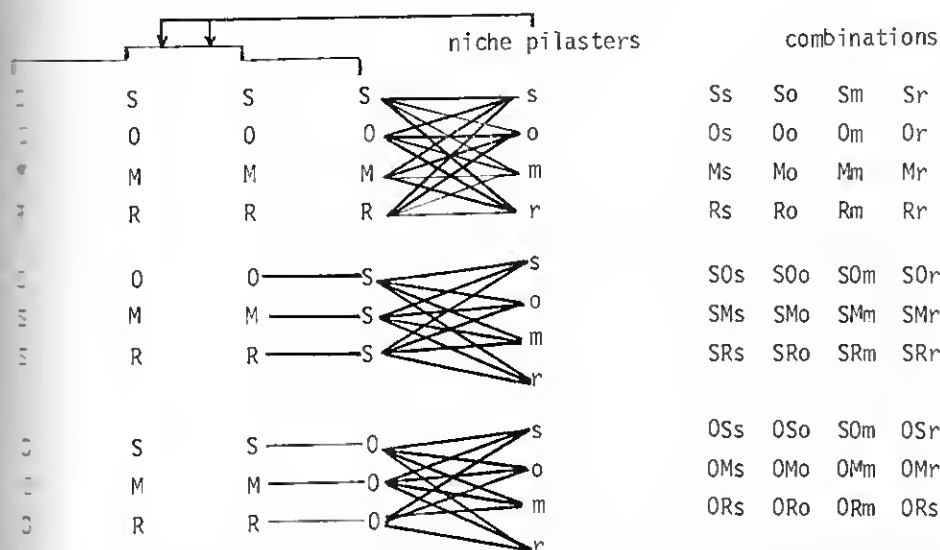
Whatever alternative is accepted the octagonal pilasters on the shrine at Nangavaram is in both cases an anomaly — at least if it was built in A.D. 800. For the very reason that it displays an alien character by way of its pilasters the temple at Nangavaram cannot be a product of the Pāṇḍyas, the Muttaraiyars, the Irukkuvēls and was, consequently, erected by the Coḷas who consistently selected the octagonal kāl for most of their koyils.

Table E.
Anomalies in the distribution-pattern on map 11.

Name of the village	kāl	locational context	district/area
Gaṅgaikōṇḍaḥapuram (G)	S	round/octagonal (R) (O)	Kāverī area
Ramanātha Kōyil	S		
Kumbakonam (K)	S		
Kōyildēvarāyanpēṭṭai (KP)	S		
Tirumayanam (T)	S		
Tiruveṅkāḍū (Tv)	S		
Vēdāranyam (V)	S		
Sōmūr	S		
Aḷḷūr, Tiruchchendurai	S		
Aṇḍanallūr, Kilaiyūr	S		
Alambakkam, Kumāravayalūr	S		
Perungudi	S		
Tudaiyūr	M		
Goburapatti	M	square (S)	Tri.
Tirmangalam	M		
Chittūr	O	octagonal/ square	South Arcot
Nārttāmalai (Melak.)	O		
Tiruvāṇḍārkōyil	S		
Madagadipattu	OR	square (S)	Palar area
Tribhuvanam	O		
Paramēśvaramangalam	O		
Mēlpādi	OR		
Tiruvadandai	OR		
Tiruvorriyūr	OR		
Tirmullaivāyil	ORS		
Kūḷambandal	OR	square (S)	
Kāñcī (Ekam.)	ORM		

M = multi faceted or polygonal

Although the distribution-pattern in the delta is simple and confirms earlier statements with regard to the date of certain Early Coḷa monuments — as for instance at Kumbakonam and Nangavaram — the picture becomes utterly confused when mapping the existing combinations of kāl shapes of each and every temple. For, theoretically the variation in applying different shapes is almost infinite, even when the building is small and the number of pilasters is therefore merely four. The following example lists only a number of all possible combinations of kāl shapes on an ekatala.



S,s = square; O,o = octagonal; M,m = polygonal and R,r = round; capitals indicate pilasters on the vimāna).

Of course this incomplete list can be extended by including the theoretical combinations applicable to dvitalas and taller buildings and supplemented with the possible variations of pilasters on the ardhamandapa, but we do not consider this useful, for the few examples just given clearly demonstrate that the Early Coḷa sthāpatis could provide a special touch of individuality to every koyil by way of its pilasters. The question remains, though, whether they really wanted to stress the identity of a shrine. We believe they did and in order to support this view we have visualized it in Figs. 50-54.

Instead of a classification based on the shape of the kālś and their position on the vimāna walls on which they occur, we have used a simplified typology in which the position of the kālś was excluded, but the types of the pilasters applied to the ardhamandapa walls were included. The temples

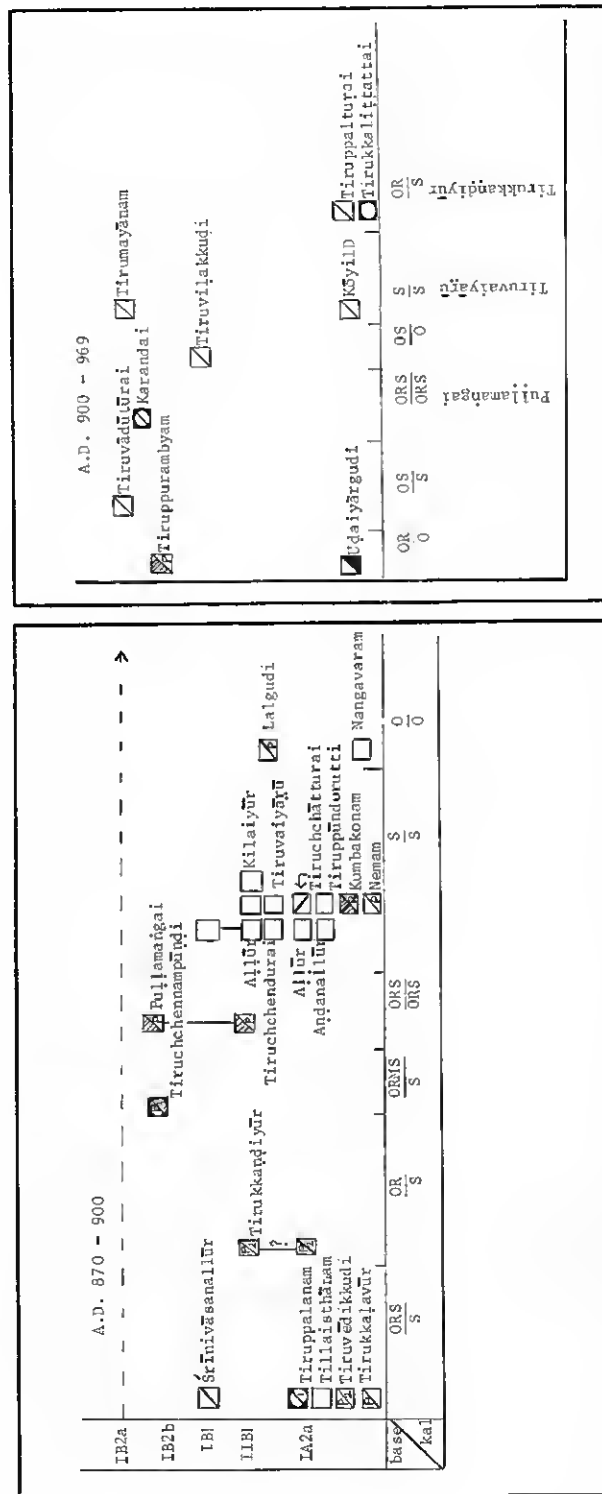





Fig. 50. Early Cola monuments built in the Kāverī area between A.D. 870-900 arranged according to base characteristics and combination of kāls.

Fig. 51. Early Cola monuments built in the Kāvēri area and at Udaiyārgudi between A.O. 900-969 arranged according to base characteristics and combination of kals.

0 = octagonal; R = round; S = square; M = multi-faceted (polygonal);
 = vimāna with octagonal kālīs and ardhamaṇḍapa with square ones;
 = idal;  = nāṭṭya-paṇṣ or vyalis; P = panels; / = vari; 1 to 3
 experiments; with vari; \ = lotus upāna. Vertical place-names site

- the delta are arranged according to:
- the simplified typology of kāl combinations;
- the type of adhiṣṭhana and
- the period in which we believe the temples were built.

Some interesting observations can be made on the basis of Figs. 50-52 and 54 for each period is characterized by a specific preference for one or more kāl shapes and for one or more types of base. We shall first summarize these phase characteristics and subsequently use them to date some monuments which so far were not firmly dated due to lack of convincing arguments.

1.1.1. The *Āditya I* phase: A.D. 870-900 (Fig. 50).

Temples built in this phase can be divided into two groups. The first is characterized by a minimum combination of kāl shapes and the application of the maximum number of adhiṣṭhana types. The earliest three monuments of the *Āditya Sthānas* and the *Koranganātha* at *Śrīnivāsanallūr* — all showing experiments with the vari (Fig. 39, p. 208) — are decorated with square, round and octagonal pilasters. However, these are placed in different positions. At *Tiruvēdikkudi* and *Tillaisthānam* the octagonal kāls stand invariably on the corners, the round ones beside the central bays, while square shafts flank the niches. At *Tirupallanāmi* the corner-kāls are again octagonal, but here the pilasters on either side of the cut-out central niches are round and the shafts on the corners of the central bay are square like those of the lateral niches (Pls. 23-25). To complete the picture with the *Koranganātha* at *Śrīnivāsanallūr* (Pl. 31c), here square kāls were applied on the outer bays, round ones flank the cut-out niches as well as the central devakoṣṭhas and octagonal pilasters are placed on the corners of the central bays.

The experimental appearance is re-enforced by differences in the top and bottom parts of the kāls. The *koyil* at *Tiruppalanāmi* has pilasters crowned by an *idaḷ*, the *Tiruvēdikkudi* temple has panels under the extension of the kāls in the *kaṇṭha*, while the shrine at *Tillaisthānam* has no such additional ornaments. The architects apparently favoured the idea of panel decorations under the pilasters for it was repeated several times (Fig. 39, p. 208). The *idaḷ*, on the other hand, was not accepted until the days of *Śembyan Mahādevī* (appendix 12, map 13).

The complex *vimāna* at *Tiruchchennampūṇḍi* has an extra pair of polygonal pilasters, while the shrine at *Puḷḷamaṅgai* again shows the earlier combination of square, round, and octagonal shafts, but now the pilasters on the *ardhamāṇḍapa* show the same variation, contrary to the monuments just mentioned which all

have square kāls on their ardhamandapas.

In the second group of monuments the exuberant, experimental spirit, regard to the shape of the pilasters is no longer obvious. Now the temples have only square or octagonal kāls, although an entirely new type of base was introduced, viz. the beautiful IIB1 adhiṣṭhana. It looks as if this reduction took place for the first time at Tirukkaṇḍiyūr, for here only two shapes were applied in combination with two types of base (Pl. 28), unfortunately partly hidden by the pavement. Once again we notice that a group of buildings which at first sight seem to display uniformity show, on closer examination, a great variety with regard to — admittedly — unobtrusive details such as panels, etc. For the monuments standing on a IA2a base and decorated with square panels have either the vari and panels (Nemam), or panels, vyālis and nāṭṭaṅkai (Kumbakonam, Fig. 43c, p. 216), or they show a padmabandha on the upāna (Tiruchātturai), or no decoration whatsoever (Melatiruppūndurutti). Although the shrine at Tiruvaiyārū seems to be a repetition of the last mentioned koyil except for its base! — it should be pointed out that the vertical fascia of the palagais is carved with delicate diamond-shaped motifs. This type of decoration was also applied on the renovated upper-part of the shrine at Śendalai (cf. Fig. 43a-b, p. 216), thus indicating that the Early Coḷa sthāpatis really wanted to make the walls of their first products unique. For these monuments, characterized by square kāls, demonstrate an individuality of their own by means of the base and/or upāna as well as by means of additional kāl decorations.

When checking these observations with those presented in Fig. 42 (p. 250) we are, once again, confronted with an indisputable fact, viz. that the monuments situated along the banks of the undivided Kāverī are all copies of monuments commissioned by Āditya I at a slightly earlier date, for they show no experiments which they would otherwise certainly have done.

5.2.1.2. *The period between A.D. 900 – 969* (Fig. 51, p. 250).

Building activities were drastically reduced during this period but some new features are worth mentioning. First of all, three new combinations of kāls were tried out, two of them occurring over a different, although familiar base at Tiruppurambyam (Pl. 40) and Tiruviḷakkudi, while a new type of adhiṣṭhana was created in addition at Tiruvādūturai. The other koyils are basically copies of older types of buildings. However, the shrine at Uḍaiyārgudi is not entirely identical with that at Tiruppurambyam — at least not as far as its combination of kāl profiles is concerned — for the latter has octagonal shafts at all the corners of the central bays and round, half-niche pilasters as well as vyālis

palagais, whereas the former has only round kāls at the corners of each central bay and along the niches. These round pilasters are, moreover, decorated with a lotus bud on top of the square base, a most peculiar feature which seems to be the forerunner of the lotus bud, occasionally decorating the kāls created in the workshop of Śembyan Mahādevī (cf. Pls. 40, 61a-b, Fig. 41b-c, p. 211).

The S/S combination occurs on old monuments such as that at Kumbakonam (Pl. 30) and on relatively young ones such as the building at Vēdāranyam. So, it looks as if the temples at Kōyildēvarāyanpēttai (Pl. 44) and Tirumayānam (Pls. 43a-b) could be dated both ways. In view of the fact that both sanctuaries are most probably examples of monuments renovated in the middle of the 10th century (pp. 128-30), it could well be that those responsible for their reconstruction retained the shapes of the original kāls — a preference which was, apparently continued till the last two koyils with octagonal, round and square pilasters were built at Tiruppaltuṟai (Pl. 56) and Tirukkaliṭṭattai (Pl. 54).

The Q/S combination occurs for the first time at Tirukkaṇḍiyūr, but here the round kāls were placed on the corners of the central bays, whereas they were used as devakoṣṭha pilasters in the other two shrines. The small śaṭṭas at Tiruppaltuṟai and Tirukkaliṭṭattai are very similar, except that at the latter munai are applied under all the palagais of the vimāna, whereas this feature is absent at Tiruppaltuṟai. Finally, there is a difference between the shapes at Puḷḷamaṅgai (Pl. 38a) and Karandai (Pl. 42a-b), for the Q/S shapes are in different positions. At Karandai the octagonal shafts stand at the four corners and flank the central bays, while the pañjaras have square and the niches round pilasters on either side. At Puḷḷamaṅgai, on the other hand, the lateral śaṭṭas and the pañjaras all have square kāls, while those on the corners of the central bays are octagonal and the nich pilasters are round.

Such a variation in shapes cannot be accidental and can only be explained if we assume that all temples were documented by way of records which were kept in one place. However, if we accept the existence of a workshop, then the designs of the small koyils at Kōyildēvarāyanpēttai, Tirumayānam, Tiruppaltuṟai and Tirukkaliṭṭattai must have been local affairs and not products of this atelier. Earlier on we already pointed out that, in view of their structural layout, these four monuments must have been renovated as a result of local initiatives during the politically dark period and this seems now to be confirmed by the exterior appearance of their walls (pp. 128-30, 139-41).

If variation in kāl shapes is the hallmark of a workshop then the sthāpatis of Śembyan Mahādevī's atelier must have shown a similar creativity when designing koyils for their queen. In the following paragraph it will be demon-

Fig. 52. Early Cola monuments built in the Kāverī delta and at Vriddhachalam between A.D. 969 - 1000 arranged according to base characteristics and combination of kāḷas.

O = octagonal; R = round; S = square; M = multi-faceted (polygonal); Q̄ = vimāna with octagonal Kālś and ardhmandapa with square pilasters; □ = idai; ♣ = nātṭya-peṇs or vyāṭis; P = panels; ▲ = lotus buds; ▽ = triangular panels; △ = triangular panels.

ted that, in fact, they even surpassed their earlier colleagues in combining
kāl shapes and types of adhiṣṭhānas.

3. The period between A.D. 969-985 (Fig. 52, left column).

Shrine at Kōṇērīrājapuram, the first to be erected by Sembyan Mahādevī's
workshop, introduced a new combination of kāls, viz. OR/OR and, in addition, a
completely new layout I-B-3, although its I-2-a vimāna still connects the
shrine with the previous period. Her architects also invented a surprisingly
new type of wall by re-introducing the polygonal kāl in combination with the
square pilaster at Kīṭṭanūr, Tiruvalaṅguḷi and Ādutturai. Since in former cases
the innovation of a base coincided with the introduction of a new kāl combination
(Tiruvāsanallūr, Tirukkaṇḍiyūr, Tiruchchennampūṇḍi and Tiruvādūtūrai) we are
inclined to think that the same applies to products of Sembyan Mahādevī's workshop, im-
plying that the shrine at Tiruvalaṅguḷi stands on the first IIB2a base ever de-
vised (Pl. 62b) although at present hidden from view (Pl. 62b).

Apart from a new layout and the introduction of new types of kāl combina-
tions a third feature of this age is the emphasis on an almost equal distribu-
tion of the different types of temple base which is in sharp contrast with the
former periods. While the first was characterized by IA2a and IIB1 adhi-
ṣṭhānas and the second by IA2a and IB2a bases, all seven types were tried out
more or less in the third phase. They are represented by the koyils indicated
by OR/S implying that all of them have vimānas decorated with octagonal and
square kāls and ardhamandapas with only square pilasters. This similarity is not
significant when other aspects are taken into consideration such as the position of
the kāls or the presence of munai, nāṭṭya-peṇs, panels or lotus buds. In order
to demonstrate that this is a correct observation we shall now summarize the
occurrences of these features on the monuments of the OR/S group per type of
temple base. Since the adhiṣṭhānas belonging to type IB1, IIB1 and IIB2b are
represented by only one example we have to confine ourselves to the discussion
of the four remaining groups of koyils in Fig 52, left column.

OR/S temples on a IA2a base.

Structurally, the temples at Tirukkuhukavūr and Ārangūr belong to different types
of buildings (I-2-a/1-B-3 and II-4-b/1-B-3 respectively). The pilaster blocks
under the vari at Ārangūr depict mythological stories, those at Tirukkuhukavūr
are plain. At Tirukkodikkaval we find panels and munai, at Nāgapaṭṭinam there
are vyālis on the palagais and at Tiruviḍaimarudūr both munai and vyālis were
chosen as ornamentation.

The OR/S temples on a IB2b base.

The citizen koyil at Gandaradittam does not display additional kāl decorat that at Tiruchcheṅgāṭṭaṅguḍi shows munai.

The OR/S temples on a IB2a base.

The shrine at Tirunāgēśvaram has no additional features except for a single luster with lotus buds on its base. At Kuhūr we noticed vyālis, at Tiruppa vyālis and munai, and, moreover, the application of two types of base; the at Pateśvaram seems at first glance a duplication of the previous monument but it has nāṭṭiya-pens instead of vyālis on its palagais and one type of instead of two. On the other hand it resembles these buildings with regard the presence of munai (Tiruppugalūr) or the shape of base (Kuhūr).

The OR/S and MR/S temples on a IIB2a base.

The two koyils characterized by OR/S kālś are either plain (Tiruvirāmeśv P1. 62a) or decorated with munai and nāṭṭiya-pens. Of the two monuments : ing round and polygonal shafts only that at Āḍuturai is modestly decorate with nāṭṭiya-pens.

The fourth and last feature of the entire group of OR/S buildings is presence in each of the seven subgroups of only one temple without additional decorations such as munai, lotus buds or vyālis, viz. the monuments at Āhukavūr (IA2a and OR/S), Tirunaṇṇaiyūr (IIB1/IB1 and OR/S), Gandaradittam and OR/S), Tirunāgēśvaram (IB2a and OR/S), Tiruvirāmeśvaram (IIB2a and OR/S), Gōvīndaputtūr (IIB2b and OR/S).

In this context we should like to draw attention to a peculiarity in the I phase which becomes significant because it is repeated in the work produced by Śembyan Mahādevī's atelier. In the first phase the sthāpatis seem to have experimented with the IIB1 base by combining this new type with the Palāc cle IA2a and IB1 and with the Cāḷukya adhiṣṭhāna IB2b. The architects of Mahādevī demonstrated the same ingenuity trying out all possible combinations of the newly introduced types of base with the three additional adhiṣṭhānas giving of four mouldings:

combination of mouldings	site	position on the building	combination of kālś
IIB2a + IB2a	Āḍuturai Tiruppugalūr	vimāna: IIB2a niche: IIB2a	MR/S OR/S
IIB2b + IA2a	Tirumaṇancheri	vimāna: IA2a niche: IIB2b (ardham.: IB2a)	?

temple at Tirumañancheri is modern, but considering the complicated pattern of base in combination with the fact that its copied inscriptions refer indirectly to Śembyan Mahādevī as its founder, we believe that the renovators tried to retain the original character of its base. Unfortunately, we are less sure about the appearance of the kāls. However, a few observations can be made about the shortness of this list.

First of all, the sthāpatis applied the IIB2a part either under the vimāna or under its central bay when they selected two types of base. Moreover, they used different combinations of kāl profiles for these shrines. When adding to the above list the other monuments displaying various types of adhiṣṭhāna under the same building, these features are repeated:

inscription	site	position on the building	combination of kāls
- IB2a	Tirumiyachchūr	} vimāna: IIB2a } niche: IIB2a	O/S
	Tiruvālāṅguḷi (Kap)		ORM/OR
- IB2b	Kuttālam	pañjara: IIB2b	RM/O
- IB1	Tirunaṇṇaiyūr	niche: IIB1	OR/S
- IB2b	Dadapuram	pañjara: IIB1	OR/OR

We do not believe that this variation in types of base and kāl is accidental. On the contrary, it seems to us to prove the existence of a master-plan. Its creator carefully avoided duplication of each new invention by recombining it with other new or existing motifs.

This idea seems to be confirmed when studying the monument at Vriddhāchalam, which was built way out of the delta. It betrays a close association with the Śembyan Mahādevī koyils by the introduction of a new combination of kāl shapes (ORM/S), while a new variant is simultaneously added to the group of shrines. For the temple at Tiruchcheṅgāṭṭāṅguḍi has munai, that at Gandaḥam shows no decoration whatsoever, and the building at Vriddhāchalam would have to introduce lotus buds.

This extreme variation in the representation of the shape and decoration of the kāl as well as the manifest wish to avoid duplications in the types of both base and the shape of the kāl seem to have evaporated in the shrine at Tiruvārūr. It resembles that at Śembyan Mahādevī in that it has a similar base (IB2a) and munai decoration. At Śembyan Mahādevī a new combination of kāl shapes was set out and never repeated while at Tiruvārūr the wall decoration of the monument at Tiruchchennampūṇḍi was copied. Moreover, when comparing the position of the various kāls of these last two buildings, it appears that they stand in

exactly the same place, viz. the octagonal kāl̥s capped by munai decorate the lateral bays, the polygonal pilasters are located on the corners of the bays, the round kāl̥s crowned by munai flank the devakoṣṭha figures and the square pilasters stand on either side of the lateral niches. Since the ground-plan at Tiruvārūr is similar to that at Tiruppalanāṁ (III/II-5-c), the buildings have an extra pair of pilasters on the corners of the protruding central part of their walls, but those at Tiruvārūr are round and those at Tiruppalanāṁ square.

We should like to point out that the group of temples raised on a II represents a complete series of layouts which originated in the workshop of Mahādevī: the I-2-a/1-B-3 (Tiruppugalūr), II-2-b/1-B-3 (Pateśvara), II-4-b/1-B-3 (Kuhūr), II-4-b/3-B-3 (Śembyan Mahādevī) and finally the III-3-A-3 (Tiruvārūr) which completes the series.

In view of all this the most characteristic developments of South Indian temple architecture during the reign of Uttama Coja consist of

1. a structural revival of the layout in a reverse order when compared with that of Āditya's reign, viz. from a simple ekatala to a complex tritala while all these experiments were carried out on one type of base only, IIB2a, an aspect which reminds us once more of the first development in the Sapta Sthānas;
2. an explosion of additional kāl̥ decorations all in combination with the rigid set of octagonal and round kāl̥s along the walls of the square pilasters along those of the ardhamāṇḍapa;
3. the introduction of two new types of base (IIB2a and IIB2b) which in a few instances — were combined with earlier types of adhiṣṭhānas. In these types of adhiṣṭhāna were chosen, the position of the newly introduced base on that particular koyil and the combination of kāl̥ shapes on the walls appears to be unique. This "tradition" was carried on into the next phase.

5.2.1.4. *The period between A.D. 985-1000 (Fig. 52, p. 254).*

During these years the productivity of the sthāpatis would seem to have been extremely low. However, as almost all of them were working on the Rājaraṭṭa at Tanjāvūr, their output is quite impressive and its quality remarkably high. Throughout this period new combinations of kāl̥ shapes were tried out again. However, no new bases were invented and the kāl̥ decorations consisted mainly of munai and minuscule panels under the pilasters. At the same time

variation in familiar base types was strongly reduced. In the delta, the IIB2a, IIB2b and IB2b adhiṣṭhānas were each selected only once, whereas the IA2a base was applied exclusively along the borders of the Kāverī area.

Of course, the picture would have been different if we had included the kōyils at Pateesvaram and Nāgapaṭṭinam of Fig. 52 in the second or third phase. In the previous chapter we dated them on various grounds provisionally in the reign of Rājarāja I. The appearance of the kumbhapañjara on the walls of the antārāla at Pateesvaram seemed an indication that the kōyil was designed after the first blue-prints of the Rājarājesvara were completed (pp. 172-73). There were no structural indications that the temple at Nāgapaṭṭinam could be dated to the last fifteen years of the 10th century (pp. 170-71). It was merely due to the absence of records older than A.D. 1010 that we suggested that this 44-3 building was raised after that at Tiruvārūr (A.D. 985). However, in the light of the new information produced by our study of the development of the kōyil we have to reconsider our previous statement.

Let us first analyse the architecture during the first five years of Rājarāja's reign, excluding the buildings at Pateesvaram and Nāgapaṭṭinam. In contrast to the previous phase, in which large clusters of identical structures were designed, not one layout of a temple built in the subsequent period was ever repeated. This diversity in structural design is even more striking when comparing the decorative elements. The four monuments situated in the delta display four different kāl combinations and four ways of combining the munai, lotus petals and panels.

These characteristics are shared by the monuments supposed to have been constructed in the last decade of the 10th century along the western banks of the divided Kāverī at Tirumangalam and Goburapatti (pp. 134-35) as demonstrated in Fig. 53 (p. 260). Earlier on we made a distinction between monuments built in A.D. 985-990 and ca. 990-1000 in view of the fact that a fixed iconographical layout was no longer prescribed in the last decade of the 10th century (pp. 178-81), while the introduction of the mukhamāṇḍapa reduced the need for large ardhamāṇḍapas (pp. 150-51).

Had we included Pateesvaram in Fig. 53, its temple should have displayed at least some of the features exhibited by the other six dvitalas, the more so, since it is located near Tiruvalaṅguḷi, Kuttālam and Manampādi. However, it has no panels — as such it resembles the shrine at Tiruvalaṅguḷi — and displays neither polygonal kāls nor new kāl combinations. On the other hand, the shrine at Pateesvaram does have vyālis above the palagai, a feature which occurs five times on the shrines of Śembyan Mahādevī but never on temples built during the

first fifteen years of Rājarāja I's reign.

Fig. 53. layout and kāl features of temples built in the Kāverī area between A.D. 985-1000.

name of village	layout	peculiarities with regard to		
		panels	munai	other kāl features
<u>Dvitalas:</u>				
Tiruvallaṅḡḷi (Pl. 63c-d)		-	above octagonals and round (AM&GG)	-
Kuttālam (Fig. 41c, p. 211)		1 row	-	complete poly. shaft; pañjaras
Manampādi (Pl. 46a-b)		1 row	above round	complete poly. shaft; pañjaras
Tirukkaḍaiyūr (Pl. 63a-b)		1 row	above octagonals	lateral niche round; central kāl has square, octagonal, polygonal and round shapes.
Tirumaṅḡalam (Pl. 50)		3 rows	above octagonals incl. pañjaras	pañjaras octagonal shaft.
Goburapatti (Pl. 49)		2 rows	above round niche kāl; above octagonals; above polygonals flanking Dakṣiṇā-mūrti	completely poly. kāl on central bay; pañjara kāl: octagonal, polygonal and round shapes.
The only other monuments showing a similar variation are the ekatalas located at Tudaiyūr, Tirumiyachchūr and Puñjai:				
<u>Ekatalas:</u>				
Tudaiyūr (Pl. 45a)		2 rows	above octagonals and round niche kāl	pañjara kāl; see Goburapatti; central bay completely polygonal
Tirumiyachchūr (Pl. 64c)		1 row	above octagonals and octagonal niche kāl	-
Puñjai (Pl. 60a)		2 rows	-	niche pilasters square, octagonal and polygonal (round!) shapes.

Although we are unable to retrace the original set of images, we may safely attribute this II-2-b/1-B-3 monument to the first ten years of Uttama Coḷa's reign.

...ga divitalavimāna to the IB2a/OR/S group of ekatalas and more complex divi-
as. Consequently, we consider the unexpected kumbhapañjara on the wall of
the false antarāla at Pateesvaram an experiment in line with the other innova-
ons on these narrow walls as we saw earlier on at Kīṭṭanūr (bare), Kōnērīrā-
aram (window) and Tiruppugalūr (blind niche, p. 171).

The same applies to the monument at Nāgapaṭṭinam. The straight walls of
ardhamanḍapa, the presence of vyālis, the absence of munai, panels and po-
gonal shafts and the OR/S shapes of the kāls all indicate that this
ding rather belongs to the period of Uttama Coḷa than to that of Rājārāja
In view of its 3-A-3 layout it might have been constructed after the shrine
Tiruvārūr; the size of its vimāna (II-2-b) suggests that it was not built
er royal patronage but rather by a wealthy citizen (p. 170).

After these arguments demonstrating why the monuments at Pateesvaram and
paṭṭinam had to be excluded from the above list, we now have to prove why
the shrines at Tudaiyūr, Tirumiyachchūr and Puñjai can be associated with
ase at Tirumaṅgalam and Goburapatti.

Viṣamaṅgaleśvara at Tudaiyūr (Pls. 45a-b).

This temple was already mentioned in the paragraph on the development of the
ñjara (pp. 130-31) where we were unable to determine its age because it is
the only example of a IIa type of pañjara, i.e. a pañjara with a kūdu incor-
orated in the main kapota of the building, though without an individual base.
Now, we are dealing with a 1-2-a vimāna located in an area domina-
ed by II-2-b shrines (map 5 and Table A). The only other two temples with a
1-2-a vimāna in this area are those at Lalgudi and Kumāravayalūr, the former
ates from the last decade of the 9th century (Fig. 42, p. 215) and the latter
all appear to be a foundation of the Muttaraiyars standing on an original base
(p. 296). This last conclusion is mainly based on the size of the vimāna which
appeared too small to contain proper niches. The 1-A-1 layout of the Viṣamaṅga-
esvara seems to contradict an association with the architecture of the 9th cen-
tury in this region (map 6), and would rather seem to point to a date in the
middle of the 10th century at the earliest. At that time the Piṭṭeśvara at Ti-
verumbūr was adapted to modern taste by the addition of niches in the walls
of its formerly too short ardhamanḍapa (pp. 119-20). The distribution-pattern
of polygonal kāls (map 11) in combination with the munai or idaḷ over the shaft
or under the palagai (map 13) relates the Viṣamaṅgaleśvara both to the monu-
ments at Goburapatti and Tirumaṅgalam and to the koyils at Tiruchchennampūṇḍi
and Tiruppalanam. The latter two are the only examples from the 9th century

Fig. 54. Early Coja monuments built between A.D. 1000 - 1044 arranged according to base characteristics and combination of kals.

0 = round; S = square; M = multi-faceted (polygonal); O = vimāna with octagonal kals and an octagonal base with square pillars; U = square pillars in vimāna, vertical pillars, also

... this type of decoration, though it was quite common in the days of Śembyan
 ... (Fig. 52, p. 254). However, at Tiruchchennampūṇḍi the polygonal shafts
 are complete and not divided into sections as, for instance, at Tirukkaḍaiyūr
 (Fig. 53), where they imitate the pilasters on the walls of the shrines at Ādu-
 ... and Kīṭṭanūr. The kāls of the pañjaras at Tudaiyūr are also divided into
 sections and resemble the full-size, complex corner kāls of some Śembyan Mahā-
 ... monuments; they are, moreover, exact copies of the pañjara pilasters applied
 at Goburapatti (cf. Pls. 49 and 63a).

In every respect the Viṣamaṅgaleśvara demonstrates its dual character. If
 it is a product of the same architects who designed the Sapta Sthānas and the
 other koyils mentioned in Fig. 39 (p. 208), its 1-2-a vimāna, however, should be
 linked with the monuments at Melatiruppūndurutti and Tirukaḷavūr belonging to
 the same category (Pls. 29a-b and 53). Comparing the ornamental details of
 these three monuments, it is obvious that the Viṣamaṅgaleśvara was not built by
 the architects who gave the shrines at Melatiruppūndurutti or Tirukaḷavūr such a
 superior touch. The difference is especially notable in the execution of the
 friezes and the kūḍus, which are particularly wide-open at the bottom at
 Melatiruppūndurutti and Tirukaḷavūr, whereas at Tudaiyūr the border of circles
 is uninterrupted by the kūḍus, and forms as it were their floor. This feature
 can also be observed on the kapotas of the koyils at Tirumayānam (Pl. 43a), Kō-
 ḷḍēvarāyanpēṭṭai (Pl. 44), Goburapatti (Pl. 49) and Tirumaṅgalam (Pl. 50).
 Consequently, the Viṣamaṅgaleśvara is a product of the 10th century and was
 built in the same decade as the temples at Goburapatti and Tirumaṅgalam, each
 representing another type of vimāna, kāl combination and pañjara, a freedom of
 choice characteristic of the end of that century.

3.2.1.5. *The period between A.D. 1000-1044 (Fig. 54).*

In Fig. 54 we have listed the monuments dated later than A.D. 1000.

They are arranged according to their base and combination of kāl shapes. Two
 facts are obvious in the imperial buildings at Tañjāvūr and Gaṅgaikoṇḍaḷapū-
 ram. In both a new combination of kāls was introduced and, in addition, the pre-
 ference for the IB1 and IIB1 adhiṣṭhānas was revived, the first above a new
 type of upāna, the second with an ogeed jagatī but without a decoration of lotus
 petals. The other koyils display a strong bias towards forms common in the days
 of Āditya I, such as the combination of kāl shapes, the base and the layout
 of the vimāna. They occur throughout the Tañjāvūr District (map 3) in a triangle
 formed by Vēḍāranyam, Tiruveṅkāḍū and Tirumalavāḍi. This indicates that shrines
 with these characteristics were built after the period in which sthāpatis from

Taṇjāvūr repeatedly and over increasingly larger distances entered the delta. The influences brought along by them reached their natural limits at the shore roughly ca. A.D. 1000. This implies that monuments raised in the subsequent period must show a dispersive distribution-pattern and, moreover, a different layout in combination with a IIB1 or IB1 base. When we apply the criteria to the controversial temples at Puñjai and Tirumiyachchūr (Fig. 52, p. 254) as well as the Ten Kailāsa at Tiruvaivārū (Fig. 54) - then it seems likely that the first two still belong to the 10th century and the third to the years of the 11th century. The other monuments enumerated in Fig. 54 no longer have any affinity with the shrines discussed earlier on and listed in Fig. 52.

The koyil at Puñjai displays the unique combination of kāl shapes reflecting the ingenuity of Śembyan Mahādevī's atelier. It stands, moreover, on a IA2a base which is uncommon in the delta during the 11th century (Fig. 52). Its polygonal kāls are partly comparable with those of the shrine at Tiruvaivārū (Fig. 53, p. 260), for they are divided into sections, which is characteristic of the late Śembyan Mahādevī monuments. However, the upper part of the kāl is octagonal and not round, as in the other examples listed in Fig. 52. This obvious flexibility with regard to the adaptation of earlier motifs - extended not only in the shape of the pilaster but also in that of kūḍus and the layout of the ardhamāṇḍapa - was no longer present in the 11th century. Of all this we have to attribute the koyil at Puñjai to the last decade of the 10th century.

The shrine at Tirumiyachchūr (Fig. 52) differs from the previous one by the absence of polygonal kāls. On the other hand, the exclusive appearance of octagonal kāls on the vimāna and square ones on the ardhamāṇḍapa, is a development not met before. This seems to indicate that we are dealing with the product of Śembyan Mahādevī's workshop. The presence of a double type of base, viz. the IIB2a and the IB2a adhiṣṭhāna under the vimāna and the ardhamāṇḍapa respectively, in addition to the occurrence of munai and/or panels also points to that obviously famous atelier, which was characterized by experiments with the layout, base and additional kāl decorations such as those displayed at Tiruvalluvar, Goburapatti, Tudaiyūr and Tirukkaḍaiyūr.

The fact that the vimāna at Tirumiyachchūr is apsidal from upāna to the top shows that it should not be considered a copy of an old Āditya I monument but rather as a replica of a Pallava monolith at Māmallapuram. Had it been constructed in the 11th century it should have displayed the ordinary type of vimāna on a square ground-plan. So it might be regarded as an unexpected element of an alien idea, brought to the delta at the time the elephant's back was

which were re-introduced in South Indian architecture, viz. at Tiruppachchiyūr (see A.D. 995, p. 239). Consequently, we date this apsidal vimāna in the Kāverī delta around A.D. 990-1000.

Finally, the Ten Kailāsa at Tiruvaiaiyārū seems to belong already to the 11th century, precisely because its type of base is again and again applied in the course of that century and the combination of its kāl contours in an undecorated version is not new, as it was copied from the monument at Tiruvādūtūrai. On the other hand, its structural layout 1-A-3 with pañjaras instead of blind arches on either side of the central bays of the vimāna should be interpreted as an attempt to avoid an old type of ground-plan. Especially this last point rather convinces us that the Ten Kailāsa dates at the latest from the very beginning of the 11th century.

The remaining temples in Fig. 54 will be discussed in the paragraph dealing with the podigai, since the history of this important element can be traced among others in these koyils (pp. 302-07).

3.3. *The South Arcot District* (Table E, p. 248).

The distribution-pattern in South Arcot is a model of simplicity. It shows a zone characterized by temples with square kāl̥s. This area is surrounded by a zone in which the octagonal shaft is part of each and every shrine. In general, the buildings in the core are older than those in the surrounding area (appendix 13, nos. 1-6, 13 and 14). However, this statement is only correct if we succeed in proving that the koyil at Tiruvāṇḍārkōyil, situated right in the heart of the core and decorated exclusively with square pilasters, is older than the monuments at Tiṇḍivanam and Kīlūr, both located in the zone in which the octagonal shaft was common, although some scholars consider them to be earlier than the temple at Tiruvāṇḍārkōyil (cf. appendix 13, nos. 8, 15 and 16). In our opinion both buildings were designed after A.D. 967 (p. 224), the year mentioned in the copy of a record engraved on the shrine at Tiruvāṇḍārkōyil in A.D. 990. In view of the fact that the distribution-pattern of temples with square and octagonal kāl̥s allows this interpretation, we shall now summarize the various arguments advanced so far.

In the first place, the part above the vari of the shrine at Tiṇḍivanam is not contemporary with its base for its stylistic appearance differs entirely from the upper part (p. 226); the foundation itself was laid between A.D. 950-955 (pp. 225-26). This could imply that the completion of the koyil at Tiṇḍi-

vanam was delayed for several years, or even decades. Secondly, the base of octagonal shafts is always square, the shape of the pilaster is not connected by the part under or directly above the vari. Consequently, the sthāpati must decide at a relatively late stage (possibly decades later) whether to select a square or octagonal shaft. Since the upper part of the building — apart from its IIB pañjara — was left plain, we can, moreover, assume that the shrine was completed during a period in which sculptors were inactive. This was not the case between A.D. 965-980, when the three monuments at Bāhūr, Kīlūr and Chāchalam were finished, for all three buildings show fine decorations. Consequently, we have to assume that at some uncertain date the villagers of Chāchalam decided to erect a building which would suit the size of the platform left by the Rāṣṭrakūṭas. However, when this decision was taken cannot be ascertained from this addition. Due to the occurrence of octagonal pilasters we are inclined to attribute it to around A.D. 980 or later, i.e. after the completion of the koyil at Kīlūr, for it does not seem likely that an innovation of this kind could have been introduced in the district under these restricted conditions.

Inscriptional evidence on the monument at Kīlūr allows for a later date than suggested by both Balasubrahmanyam and Barrett (appendix 13, no. 16), though they agree that the temple in question was rebuilt. For a record was found on a stray stone in the compound dated in the 13th regnal year of Parāntaka I. This indicates that the original koyil must have indeed been reconstructed after A.D. 920. When asking ourselves when this happened there are two possibilities. The Kṛṣṇa III records on this temple dating from A.D. 959-988 engraved between the new, octagonal pilasters could either be original or copied from an older shrine — an activity which, consequently, should have taken place after A.D. 965. Balasubrahmanyam believed that the shrine at Chāchalam belongs to the reign of Parāntaka I, whereas Barrett assumed a later date. The grounds of a record on its walls mentioning two gifts from the 28th and 29th regnal years of a Parakesari. This could mean that the original two inscriptions were copied as one, possibly due to lack of space.

We agree with Barrett that this must have happened after the 33rd regnal year, i.e. A.D. 940. On the other hand, we reject his suggestion that the reconstruction must have occurred ca. A.D. 959. Barrett based his opinion in the first place on the presence of the records in the name of Kṛṣṇa III, the earliest of whom dates from A.D. 959, and, secondly, on the presence of Gaṅgā and Yamunā deities carved by dwarfs on the door-jambs of the temple entrance. These facts can be interpreted differently. Firstly, the inscriptions of Kṛṣṇa III could have been

ified, like the records of Parāntaka I, for none of them refers to the renovation or reconstruction of the building. Secondly, the two alien figures on a shrine, which in all other respect displays the early Coḷa style, merely indicate that the architect was aware of the Cāḷukya custom to include these river-goddesses in the decoration of a temple. The copying of this Cāḷukya element does not necessarily imply that Kṛṣṇa III was present in this part of India when the shrine was built.

Another reason to date the monument at Kīḷūr after A.O. 965 is the refinement of its ornamental details, for if it was reconstructed between A.D. 940-960 it would have been the only really exquisitely decorated koyil in the entire Coḷa empire belonging to that period. In the delta only small shrines were repaired or renovated (appendix 9, nos. 19 and 21), and though the temple at Tiruviḷakkuḍi (appendix 10, no. 5) is an exception, even that building took more than a decade to be completed (A.O. 959-970). Combining this decoration of the monument at Kīḷūr with other features characteristic of the Early Coḷa style such as the presence of the vari, the padmabandha on the upāna and above all the II-2-b/1-B-1 layout, we can safely assume that it was constructed after the hybrid temple at Bāhūr. On the latter the octagonal kāl̥s and the vari are still absent, although it was built ca. A.D. 965, but its I-1-a/1-B-1 layout is Early Coḷa. However, its upāna is of an unknown variety never applied by either the Coḷas or the Rāṣṭrakūṭas.

Summarizing the various aspects introduced in the koyils at Bāhūr, Tiruvāṇḍārkōyil and Kīḷūr, the following instructive series emerges:

at Bāhūr	the Coḷa 1-B-1 layout;
at Tiruvāṇḍārkōyil	the Coḷa II-2-b layout and the Coḷa vari;
at Kīḷūr	the Coḷa octagonal kāl̥ and the Coḷa lotus upāna under a IB1 base (re-introduced in the delta at Tirunaṟaiyūr be- tween A.O. 970-980).

In view of all this we attribute the monuments at Tiruvāṇḍārkōyil and Kīḷūr to roughly A.D. 967-970 (A.D. 967 being the year of the latest copied record, no. 265) and ca. A.D. 975-980 respectively.

The round kāl̥s on the recently renovated shrine at Madagadipattu²²⁾ and the octagonal kāl̥s on the Varadarāja Perumal at Tribhuvana — both located in the area where the square pilaster is predominant — indicate that these two buildings must be either older or younger than the other monument in this area (appendix 13, nos. 20 and 23). Inscriptional evidence proves them to be later, for, in the compound of the Tirukandīśvara at Madagadipattu some slabs were discovered carrying inscriptions, one of which is a foundation record

stating that the koyil was raised by Rājarāja I.²³) The Perumal at Tribhuvana was built around A.D. 1000-1015 (p. 244). The layout of both monuments deviates from the current I-B-1 type still applied in the temples as Āḍapuram (appendix 13, nos. 21-22) constructed before A.D. 1006. This aspect is of importance in connection with the dates of the shrines in South Arcot not yet discussed. At this stage, however, we can only attribute them to the days of Rājarāja I and his successors in view of the fact that they combine the octagonal and/or round pilasters with an I-2-b, I-A-1 layout. We shall now conclude our survey of monuments in South Arcot by summarizing their characteristics in relation to their dates.

The Tirukaṇṭīśvara at Maḍagadipattu (Pl. 82; appendix 13, no. 20).

This Śaiva koyil must have collapsed and its stones robbed. Nevertheless, Pattabiramin renovated this temple along "scientific lines".²⁴) The shrine has a layout to which an antarāla and a mukhamāṇḍapa (floor) were added in the rear of the vimāna. At present the vimāna belongs to the I-2-b type, but in our opinion parts of the original kaṇakuṭṭis are reworked in the niches and could be interpreted as remnants of an older hāra, which would imply that originally, this shrine must have been a II-2-b building. However, the size of its śikhara goes against this view, for the impressive cupola is too large for the relatively small ceiling of a second tala (for other I-2-b vimānas with kaṇakuṭṭis cf. Pls. 71a and 71b).

Assuming that Pattabiramin did his utmost to restore the koyil on a ground-plan and used as many original blocks as could be recovered, we can draw the following conclusions. Firstly, the king, apparently, did not spend a large amount of money on the construction of this temple, for in that case it must have displayed a design similar to that at, for instance, Kuttālam or Tiruvārūr (cf. appendix 11, nos. 19, 23, 24). Since this is not the case, and the size of the building, moreover, resembles that of the later and much smaller Rājarāja monuments in the delta, it could have been constructed in about the same period, viz. between A.D. 1000-1014 (cf. appendix 11, nos. 27 and 29). In the second place, a number of old and familiar features which lend the shrine the appearance of a collage, remind us of the products built during the second half of Rājarāja's reign. The I-2-b vimāna could have been copied from the koyil at Uḍaiyārgudi, the I-B-2 base from that at Vriḍdhāchalam, the I-A-1 layout from the temples around Tañjāvūr, whereas the application of the same type of ornamentation on both the vimāna and the ardhamāṇḍapa is an arrangement which can be associated with the shrines constructed after A.D. 1000 (cf. Fig. 54, p. 268).

In view of this we may assume that the Tirukaṇṭīśvara was commissioned

and the same time as the monument at Tiruveṅkāḍū, and that it is probably contemporary with the temple at Vēdāraṇyam (A.O. 1000-1014). With reference to these facts it would seem that Rājaraḁa spent most of his money in his capital and paid only scarce attention to the dilapidated shrines in the small towns of his empire — a state of affairs already suggested as a possibility in the previous chapter (pp.165 - 66). In that case the two temples at Oadapuram built with lavish funds just before A.O. 1000 could well represent the last token of royal patronage in the outlying districts, while from then onwards the I-B -1/3 layout was no longer selected because its size was too large for the locally available means. Since the Jambunātha belongs to this category we will now turn to this monument.

Jambunātha at Jambai (Pl. 83; appendix 13, no. 18).

The Jambunātha is the westernmost koyil built by the Early Coḁas in this area. It is a II-2-a/1-B-1 construction standing on a IB2a base and decorated with octagonal, round and square pilasters. Since its present superstructure is entirely made of brick, we believe that, originally, the vimāna must have been of *ekataḁa* of type I-2-a.

Records from the days of Parāntaka I were discovered on slabs scattered in the compound, while many inscriptions dating from the period of Rājaraḁa I are engraved on the walls of this building.²⁵⁾ This does not automatically imply that it was reconstructed during Rājaraḁa's reign. We may only conclude that reconstruction took place between A.D. 955, the year in which Parāntaka I died and A.D. 1001, the 16th regnal year of Rājaraḁa I — the earliest year mentioned in one of the inscriptions on the walls.

The presence of octagonal and round kāls indicates that this koyil was built after that at Kīḁūr, i.e. after A.O. 975-980. A few more arguments support this view. In the first place, the Jambunātha at Jambai cannot have been constructed between A.D. 955-965, as in that case it would have shown Rāṣṭrakūṭa influences which are noticable in this area, especially in the ground-plan and/or in the downmost layers of a building (cf. the upāna at Bāhūr, Pl. 72c; the layout of the shrine at Tiṇḁivanam, the division of its ardhamanḁapa walls, and the fact that only the adhiṣṭhāna is decorated, Pls. 51, 69a-b). On the other hand, the original layout of the Jambunātha, viz. I-2-a/1-B-1, indicates that this building was, right from the start, designed in the Early Coḁa style. The presence of the vari and the relatively simple lotus upāna point in the same direction. In the second place, the Jambunātha cannot have been constructed before the shrine at Tiruvāṇḁarkōyil, i.e. between A.O. 965-970, as in that case it would

still have had square *kāls* instead of the present octagonal and round pilasters (cf. Pl. 68, pp. 265-66), though the decoration in as far as still present is rather dull on both monuments. In the third place, the Jambunātha in its present form cannot date from A.D. 970-980, as that is the prosperous period in which the temples at Kīlūr and Vriddhāchalam were erected. Consequently, the shrine can only have been constructed between A.D. 980-1000, the A.D. 1001 being the earliest date referring to Rājarāja I mentioned in a record on its walls, while all earlier inscriptions lie scattered in the compound.

Unfortunately, the building has no spectacular features providing more convincing arguments for its position within the chronology suggested in Fig. 46, p. 227. Comparing it with another unattractive koyil, viz. that at Brahmadeśam (A.D. 990-1000; appendix 13, no. 19 and p. 243) we believe that some less skilled craftsmen — probably from the area itself — tried to copy two fine examples, viz. the 1-B-1 koyil at Kīlūr and the 1-B-3 monument at Vriddhāchalam which were both created by artists who had returned to the area after completing their work in South Arcot.

The Rāmanāthesvaram at Eśālem (Pl. 84; appendix 13, no. 9).

The Rāmanāthesvaram was called Valīśvara or Tiruvirāmeśvara by Balasubrahmanya who attributed it to the reign of Rājarāja I.²⁶ It has square and octagonal pilasters and *idaḷs* under its palagais. The building does not carry inscriptions from the days of either Rājarāja I or later kings. However, some records on the two shrines at Brahmadeśam not far off, refer to the koyil in question but they date from the days of Kulottuṅga I at the earliest (A.D. 1077). For some reason Balasubrahmanyam included this koyil in his chapter dealing with monuments belonging to the period of Rājarāja I. We believe he was right in doing so, but only if we attribute the building to the second half of Rājarāja's reign, for, otherwise, the *munai* on this temple would be the first designed in South Arcot. The reasons why we believe that the monument was erected between A.D. 1000-1014 and not during the rule of Kulottuṅga I are as follows.

In the first place, we learn from the distribution-pattern of the *idaḷ* that this ornament never became common in the Coḷamaṇḍalam, although it was applied rather frequently on temples built during the days of Śembyan Maṇu which includes the early part of the reign of Rājarāja I. Since the *idaḷ* can be associated with the activities of this queen, it seems correct to assume that the *idaḷ* was introduced in South Arcot with the koyils at Dadapura —

ments of which the records specifically mention that they were financed by members of the royal family. Now, the small temple at Eśālem was apparently not under such high patronage, so we may safely assume that its sthāpati when designing the koyil at the instigation of the villagers copied temples in the district which may well have been the impressive monuments in the neighbouring town of Dadapuram (A.D. 1000-1006), implying that the shrine was raised later than that. As it is a citizen koyil it must have been a smaller temple than those at Dadapuram, which is confirmed by its smaller 1-A-1 lay-out contrasting with the large 1-B-1 ground-plans at Dadapuram.

Furthermore, it is unlikely that the koyil at Eśālem was constructed during the reign of Kulottunga I, because at that time the architectural style had already changed considerably as is obvious at Siddhalingamaḍam (A.D. 1070, no. 13, no. 12), where we find a building with the same 1-A-1 layout as at Eśālem, but decorated with round and octagonal pilasters and boldly shaped idāls, while its podigai is transformed into a T with vertical rib incisions. Since the podigais at Eśālem all belong to the throated type current in the delta throughout the 10th century we are inclined to attach importance to this shape introduced at Tañjāvūr around A.D. 1000, and consequently we believe that the monument at Eśālem could indeed have been built between A.D. 1000-1006.

Brahmeśvara at Brahmadeśam (Pl. 85a-b; appendix 13, no. 11).

This shrine seems to confirm the development suggested above and in Fig. 57 (no. 30D), viz. that the throated podigai changed into a T in South Arcot and that the mukhamaṇḍapa became a fixed feature in the total design of the small, main koyil in a temple compound. The earliest dated inscription on the Brahmeśvara mentions the year A.D. 1101.²⁷⁾ The I-2-b vimāna has a 1-A-1 layout with an arārāla and mukhamaṇḍapa. The corbel is T-shaped and the row of bhūtagaṇas does not continue along the ardhamaṇḍapa. The circle inside the kūḍus on the kapota is detached from the bottom edge and there are rosettes instead of siṃhamukhas over the kūḍus (appendix 6, Fig. 9). So, from the podigai upwards this temple dates from the Middle Coḷa period. Since we could not detect any difference between the treatment of the stone carvings and decorations on the lower and that on the upper part of the building, we are inclined to consider both parts contemporary, implying that the entire complex belongs to the days of Rājendra I or his successors.

With this Middle or Late Coḷa monument at Brahmadeśam we conclude our

discussion of the architectural development in South Arcot. We have tried to date the temples in this area as far as their rather dull features allowed. The last two elements to be discussed, viz. the śikhara and the podigai, do not contribute to our knowledge with regard to the shrines in this district, since most of the original superstructures have disappeared. The podigai in its three or angular version occurs on all buildings except on those which were constructed after the reign of Rājendra I, viz. the koyils at Brahmadeśam (Br), Sivalingamaḍam and Tirukkoyilūr (appendix 13, nos. 11-12 and 24). However, the śikhara and podigai appear to be of great importance for the temples in the Tiruchirappalli District and the Palar region respectively. When discussing the two elements in paragraphs 6 and 7 (pp. 275-316), we shall return to the monuments in both areas.

5.2.3. *The Palar region.*

The distribution-pattern of the kāl variants in the Palar region is not very helpful. As usually, the Coḷa variants occur on the fringe of this large area, either on temples displaying the octagonal shaft exclusively (Paramēśvara Temple), or on buildings with the more characteristic Coḷa combination of round and octagonal kāls (cf. Table E, p. 248).

When comparing the information provided in appendix 15 and Table E we are able to draw the following conclusions. In the first place, the round shaft was introduced in the Toṇḍaimaṇḍalam about 40 years later than in South Arcot and appears for the first time on the Coḷeśvara at Mēlpādi dated A.D. 1000 (appendix 13, no. 16; appendix 15, no. 19). In the second place, the combination of round and octagonal shafts is a matter of choice, for there are a number of shrines which still display the massive, square shaft although they were constructed in the 11th century or later. These monuments exhibit the old-fashioned pilaster in combination with a corbel which is somehow carved into a T-shape (appendix 15, nos. 20-24, 28, 30). Since all other shrines with square kāls are characterized by the Early Coḷa podigai (appendix 15, nos. 10-14, 16, 18), it is obvious that we cannot date a temple exclusively on the base of the appearance of its pilasters, for we have to take into account the shape of its podigai as well. Since the corbel is the subject of our last paragraph, we shall postpone our discussion of the remaining monuments in the Palar region till paragraph 16 (pp. 307-16).

3.3 Some observations regarding the presence of attendant figures.

The reader may be slightly surprised to be confronted at the end of the discussion of the *kāl* with some observations regarding the occurrence of attendant figures on either side of the niches. However, it should be realized that these figures are carved in the stones which contain at least one, but normally two *kāl* bases. Good illustrations showing this arrangement are Plates 31a, 38b, 54, 55a, 62b, 73, 80b and 100. So, whenever sculptures are present they are planned in combination with the shape of the half-size niche pilasters and corner *kāls* of the central bays.

On map 13 the distribution of temples displaying small sculptures on either side of one or more *devakoṣṭhas* shows a strong regional bias, for they are restricted almost entirely to the delta and are absent almost everywhere. In the *Ār* region this feature occurs in shrines built during the 11th century, viz. those at Tirumullaivāyil (T), Tiruvorriyūr (Tr), Kāvaṇṇandālam (Ka), Kūḷambanai (Ku) and Tirumaḷiśai (Tm) appendix 15, nos. 31, 27, 20, 29, 28). In South Arcot the monuments at Dadapuram (D) are the only two examples of shrines exhibiting these figures.

In view of the fact that these tiny expressions of devotion in stone appear to be a typical Early Coḷa element in the architecture of Tamil Nāḍu towards the end of the 9th century, we conclude that this concept associates the buildings just mentioned to the Early Coḷa style, although they deviate from it in many other respects as we shall see further on.

We should like to draw special attention to the period in which these attendant *ṛṣis*, animals, *gaṇas* and celestial beings were created, for, their appearance has to be related to the experiments carried out by Āditya's workshop. Among all the monuments raised between A.D. 870-900 and listed in Fig. 50, p. 250, these figures appear only at Śrīnivāsanallūr, Puḷḷamaṅgai and Tirukkaḷavūr. On the other hand, they are present on all shrines built in the 10th century and listed in Figs. 51 and 52 (pp. 250 and 254 respectively), except on the large *koyil* at Tiruppurambyam and the shrines built as a result of local initiatives at Tiruviḷakkudi, Tiruppalturai and Gandaradittam. They are also absent in temples raised during the last decade of the 10th century and seem to be re-introduced only as late as the second quarter of the 11th century at Gaṅgaikoṇḍaḷapuram.

What does this distribution in space and time reveal? First of all, it should be pointed out that these figures on either side of a deity may well have been depicted by way of paintings in the phase preceding the Early Coḷa

period. This practice could have lingered on during the first 30 years in which Āditya's workshop was active, which would explain the absence of blocked shapes between the two pilasters on either side of a niche between A.D. 870-900. There is also another possibility, for the lateral niches in the first three vimānas of the Sapta Sthānas may have been intended for large figures similar to those on the Arjuna Ratha at Māmallapuram (Pl. 1). However, from the way the lateral sculptures are arranged — sometimes in three rows on the one side and the other — it is obvious that long, narrow niches do not offer a particularly suitable space for seated ascetics praying at the feet of Dakṣiṇāmūrti — as at Śrīnivāsanaḷlūr (Pl. 31b) — or a seated figure in the act of offering his/her devotion to Durgā — as depicted at Puḷḷamaṅgai — or the necessarily small figures of Lakṣmī and Brahmā on either side of Liṅgodbhava — as shown also at Puḷḷamaṅgai (Pl. 31c).

In our opinion the early Coḷa sthāpatīs were confronted with this problem when they copied the Pallava layout with its long, narrow and, moreover, low cut-out niches. It is quite possible that they wavered between two solutions. The first would be to eliminate the superfluous niches resulting in the II-1 and I-2-a layouts and to paint the walls as may have been the custom on the earlier temples. The other solution could be to leave these niches empty (Śrīnivāsanaḷlūr) or to replace them with pañjaras (Puḷḷamaṅgai) and to frame the deities with stone versions of the originally painted figures. In that case the Lakṣmī-nātha at Śrīnivāsanaḷlūr represents an intermediate stage — and should not be interpreted as the result of outside influences in the Kāverī area —, for only one deity is placed in a kind of tableau consisting of three superimposed stone carvings, is Dakṣiṇāmūrti, implying that the wall space around the other two main images remained bare or was originally merely painted. The latter possibility is less likely as no traces of paint were ever noticed on this building so far as we know. At Puḷḷamaṅgai and Tirukkaḷavūr complete sets of small figures were for the first time carved on either side of all five deities.

We are not in a position to judge whether the representation of attendant deities and/or ṛṣis, animals and celestial beings can be related to a specific early phase in the development of South Indian mythology and its transfer to painting and sculpture. The mature way in which these figures are depicted on the three monuments just mentioned indicates that they must have been known at least in paintings. However, it is obvious that the long, narrow niches are unsuitable for seated figures, be it in single, double or triple rows. If our reasoning can only stand if we accept the existence of a workshop, then the trials and errors, resulting in intermediate solutions, appear to be inevitable. After having demonstrated that the monuments built between A.D. 870-900 s

Experiments in all details discussed so far, it should not be surprising that they also show variations in this respect.

II Composition of the śikhara

The śikhara is not a real storey, but the cupola over the vimāna (Figs. 21 and 36, 84 and 196). The term superstructure indicates all parts above the vyāli of the first tala including the śikhara. The superstructure of an ekatala consists of the grīvā platform, the grīvā and the śikhara crowned by a stūpī which is the inauguration symbol of the shrine. The superstructure of a dvitala consists of a second tala which is hidden behind the hāra of the first tala, the grīvā-platform, the grīvā and the śikhara with its stūpī. The grīvā platform together with the grīvā and the śikhara form, as it were, a small ekatala, in which the grīvā forms the walls, in which niches are cut out. Usually sculptures of the vāhana of the enshrined deity are placed on the four corners of the grīvā platform. Occasionally karṇakuṭīs were preferred with on either side of the vāhana.

Although the shape of the śikhara will be the main subject of our discussion, we shall pay attention to the composition of the superstructure, the grīvā niches, and the elements on the corners of the grīvā platform, whenever this seems appropriate.

III Typology.

The shape of the South Indian śikhara is rather simple. Basically it is a "cupola" on a square (Nāgara), octagonal (Drāviḍa), circular or apsidal (Vesara) ground-plan. Nevertheless, lengthy discussions have been carried on in publications dealing with the interpretation of these three Sanskrit terms in the śāstras.²⁸⁾ At one time it was believed that Drāviḍa (the octagonal shape) stood for South Indian temple architecture, Nāgara (the square) for the North Indian styles, whereas the term Vesara was supposed to indicate the Central Indian order. At present, the general opinion is that all three terms apply only to South Indian architecture, implying that the square, the octagon, the circle and the ellips are basic shapes to be found throughout the southern half of the continent.²⁹⁾ It should be realized, however, that it is not the shape of the

śikhara which is the main distinction between a southern and a northern style structure but its profile which is pyramidal in the south and curvilinear in the north.

Prior to Early Coḷa times the square roof was popular in the Cāḷukya country³⁰), whereas the octagonal shape was most common in the Tondaimaṇḍalam, where the Pallavas were lord and master. However, the rathas at Māmāllapuram prove that the Pallava sthāpatis already knew all the shapes mentioned in the Vastuśāstras. The square Cāḷukya śikhara and the octagonal Pallava cupola share remarkable features. Firstly, they are relatively small and, secondly, they are hardly as large as those on the kapotas.

The Early Coḷa architects did not exactly copy any specific example from their predecessors, for they designed a śikhara which, first of all, was bulbous and, moreover, made a rather heavy impression because the hāra was thick (cf. Pls. 1-2, 28, 29a, 33 and Fig. 36, p. 196). The third deviation from the previous styles is the size of the kūḍus on the grīvā walls, for gigantic horseshoe-shaped blocks of granite crowned by a grinning sinhamukha now took the place of the modest kūḍus of former days. All this does not mean that the circular śikhara was the trade mark of the Coḷas, for octagonal and square śikharas also occur in and around the delta. Their actual number can no longer be ascertained, as many stone superstructures were completely renovated and replaced by brick constructions which are almost invariably round (Pl. 86). Consequently the delta had to be left out from our discussion of the distribution of śikhara variants. However, the pattern of octagonal and square śikharas indicated on map 12, clearly illustrates that all forms occurred in the delta.

6.2. Distribution of the śikhara variants; determination and description of uniform regions

In the Tiruchchirappalli District nearly all temples have a square śikhara (Pl. 12). Exceptions are the monuments with round śikharas along the southern bank of the Kāverī: at Nangavaram (N), Aḷḷūr (Pas)(A), Perungudi (P) and Kumārakottai (K), and more to the south at Virālūr (V), Kiranūr (Ki), Kannanūr (Ka) and the Vijayālaya Coḷeśvara at Nārttāmalai (N), the renovated Melakadambūr temple excluded. Octagonal roofs occur on the monuments at Aḷḷūr (Pan)(A)³¹), Tirumangalam (Tm) and Uyyakkōṇḍān Tirumalai (UK), together spanning one century of building activities (appendices 8 and 9).

In South Arcot the round shape occurs most frequently. Octagonal śikharas are fringe phenomena located at Dadapuram (D), Tiṇḍivanam (Ti), Kiliyanūr (Ki),

Grāmam (G). The square variant can be found at Jambai (J), Bāhūr (B) and in a typical Early Coḷa shrine at Tirunāmanallūr (Tn), which, moreover, introduced the lotus adhiṣṭhāna in this area. All this indicates that the Early Coḷa artists exported the round śikhara as well as the square one. All three types of roof were introduced in this area at the time Parāntaka I had his head-quarters near Grāmam, as illustrated by the dome over the ekatala at Erumbūr (A.D. 931), the square roof over the koyil with lotus base at Tirunāmanallūr (A.D. 935) and the octagonal śikhara over the dvitala at Grāmam (A.D. 943). It is obvious that the various shapes of the śikhara cannot contribute to a more precise dating of Early Coḷa monuments, than already arrived at in the previous paragraph.

In the Palar region the octagonal Pallava śikhara also seems to be a phenomenon which was brought to the political and physical borders of the empire. It occurs at Tiruvallam (T), Tiruvanmiyūr (Tm) and Paramēśvaramangalam (P). The elephant's back (E), however, is characteristic of the area. It was preferred to the octagonal variant, either for the entire vimāna or only for the śikhara. The monuments at Tirumullaivāyil (Tv) and Tiruvorriyūr (To) are examples of vimānas which are apsidal from the upāna upwards. The smaller shrines at Tiruttāni (Tt), Tanṇāṇḍālam (K) and Kuvam (Ku) display a mixed form, for their garbhagrihas are square, whereas their śikharas are apsidal. Finally, the shrine at Pappachchiyūr (Tp) has a rectangular ground-plan, while its superstructure is elephant's back. The combination of different types of ground-plan for the garbhagriha and the śikhara is not new, for the abominably ill-maintained Pallava monument at Kuram (Kr) — not far from Kāñcī — also displays a hybrid character. Since the octagonal, round, square, and the apsidal śikhara were known from the days of the Pallavas and, apparently, applied throughout the subsequent period (appendix 15, nos. 10-31), the various shapes of this element cannot be used for dating monuments in this area.

From the distribution-pattern of śikhara variants in the Tiruchirappalli district illustrated in map 12, three conclusions can be drawn. Firstly, in the area south of the undivided Kāverī we noticed an obvious preference for one particular variant. Secondly, within this uniform region deviations must be either older or younger than the monuments with the regional variant, or must have been built by outsiders. If they are older they should represent the remainders of a style which characterized the area during an earlier period; if they are younger they should represent the first examples of a later style. If they were built by outsiders, these shrines must display other foreign elements as well. Thirdly, the Kāverī region, including the zone west of the Grand Anicut, is characterized by a diversity of forms resulting in a random distribution of

square and octagonal śikharas. This implies that the area west of the Gran cut should be compared with that east of the dam, but not with the region to the south of this stretch of land bordering the great river.³²⁾ This view is embodied in the variation of śikharas crowning the Sapta Sthānas. Two of the oldest vimānas in this group have a square roof (Tiruppalanam and Tillaisai Pl. 24). The śikhara at Tiruvēdikkudi is round (Pl. 25). The octagonal grīvā platform over the first tala of the temple at Melatiruppūndurutti which has a square layout, carries a dome. If this round śikhara is original, then it clearly demonstrates the indifference of these early Coḷa sthāpatis for a particular shape of roof. For, in this case, the square, the octagon and the circle are combined in one building. Since the grīvā is decorated with round pilasters from an aspect to which we shall pay attention presently — we are convinced that the roof in question is the original śikhara (Pl. 29a). In the fourth region, the Muttaraiyar tract south of the Kāverī should be considered a separate — undoubtedly the oldest — region characterized by square śikharas only (Pl. 29b and 6).³³⁾ This is confirmed by the fact that the oldest Sapta Sthāna shrines still have a square roof. A second argument is the way in which the grīvā seems to develop from a primitive, protruding slab into something which is called a niche. We shall discuss this aspect in detail in the next section of this paragraph since it will affect the accepted chronology of the koyils in this area.

6.2.1. *The Tiruchirappalli District.*

Fig. 55 shows four ways in which niches were incorporated into square and octagonal grīvās. Firstly, a distinction should be made between the "niche" which is more than a rectangular block of granite in which the figure of a deity is carved (Fig. 55b) or has not (Fig. 55a) been carved (Tiruppūr and Kaḷiyapaṭṭi, Pl. 17), Nārttāmalai respectively, the niche with pilasters which protrudes which provides sufficient space for a slab or an image (Fig. 55c, Pananai, Kannanūr, Pl. 18), and the projecting niche with proper niche pilasters and moreover, two corbels supporting the huge kūdu of the śikhara (Fig. 55d, Koḍumbāḷūr, Tirukkaṭṭalai, and all other shrines in the district). This version is also characteristic of the Sapta Sthānas.

A second point concerns the size of the kūdu over this niche. It can be up to the inverted padma in which the stūpī has been placed, or only half the śikhara, a size only found at Nārttāmalai and Virālūr. A third difference is the way in which the grīvā-platform is adjusted to the ground-plan of the grīvā. It can be interrupted by the slab in front of the grīvā niche (Nārttāmalai).

, Kāṭyapaṭṭi, Viśālūr and Tiruppūr) or adjust itself to the grīvā-projection (Panangudi and other monuments). This second possibility can also be realized by setting a rather large, though square platform on which the entire grīvā including its projections is placed.

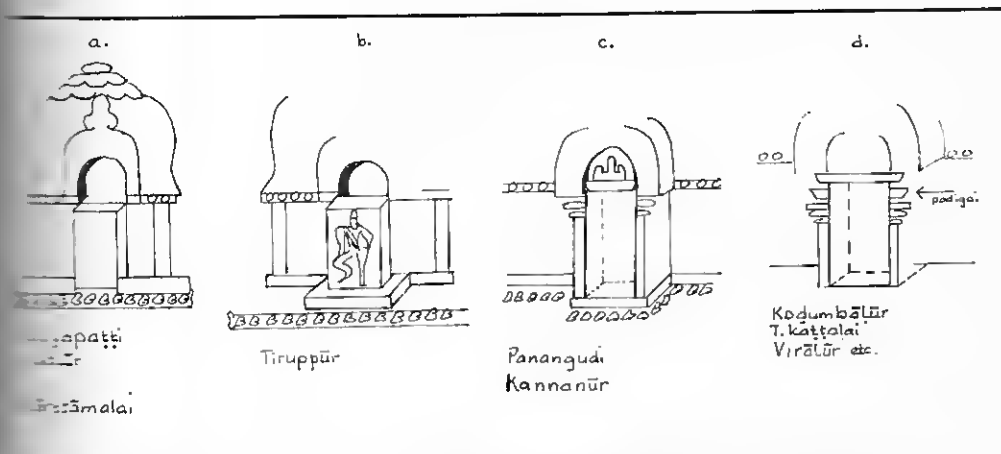


Fig. 55. Evolution of the grīvā niche in Tiruchirappalli District.

fourth difference can be observed in the profile of the śikhara. This is generally bell-shaped, as in Coḷa temples. The only exception occurs at Nārttamaṭṭi, where it is straight and therefore comparable with the profile of Pallava śikharas. 34)

The most primitive version of a niche is the rectangular slab. The adjustment of the grīvā platform to the grīvā seems to indicate a further step in the development of the temple design. The occurrence of a śikhara with a straight profile in an area where all other roofs are bell-shaped, denotes an influence from outside. Furthermore, it was pointed out in chapter three that vimānas without niches are older than those with one or more niches (Fig. 30a-b, p. 103). The combination of the primitive grīvā niches (Figs. 55a-b) with the niche-less śikharas of the tiny Muttaraiyar koyils is another confirmation of this view. The interpretation of the distribution-pattern in the southern part of the Tiruchirappalli District now becomes easier. We shall be able to prove that vimānas with round śikharas in this area — which were not discussed so far (appendix 14, nos. 1,7,12) were constructed either before or after the period in which square śikharas were customary (appendix 14, nos. 2-6, 8-10).

The Vijayālaya Coḷeśvara at Nārttāmalai (Pl. 87; appendix 14, no. 1).

This impressive monument is a III-5-c vimāna without any niches. Except for the round grīvā and śikhara it rather looks like a Pallava shrine. The hāra runs over the ardhamandapa and continues over the walls of the vimāna in an arched form. The fact that we are dealing with a sāndhāra vimāna which, moreover, has bare, niche-less walls and crude slabs high up on the grīvā are all indications that this koyil does not date from the period in which the smaller Muttarai shrines were designed. One may seriously doubt whether it was built by the people of this area. On the contrary, it was almost certainly constructed by outsiders. Barrett agreed with Soundara Rajan that it was raised before the Early Coḷa age, in spite of the fact that its name, Vijayālaya Coḷeśvara, refers to the first Coḷa ruler. While Barrett thought that it is a Pallava temple, Soundara Rajan considered it to be an example of the Muttarai style, but this is not possible in view of the shape and profile of the śikhara. For the same reason we disagree with Balasubrahmanyam who regarded it as the earliest proof of the architectural skill of the Early Coḷa sthāpatīs.

In our opinion Barrett correctly attributed this controversial monument to the Pallava period. He compared it with a similar, but damaged sāndhāra vimāna at Alambakkam also located in the Tiruchirappalli District, but to the north of the Coleroon. This building, situated in a village known as Dattamangalam in the days of Āditya I and Parāntaka I³⁵), displays the same arrangement of the walls. We should like to draw attention to another ruined sāndhāra vimāna viz. the nearby Sundarēśvara at Mēlappaḷuvūr which has exactly the same layout as the temple at Alambakkam. Since both monuments testify to the religious activities of the Pallavas at a time they were ruling this part of the country, we may assume that sāndhāras with at least five projecting parts and more than 10 pilasters (-5-c) were constructed before A.D. 850 not only in the Palar area (the Sundaravaradarāja Perumal, the Vaiṣṇa Perumal and the Saiva sanātha at Uttaramallūr) but also farther south in the Tiruchirappalli District.

There is one point which would seem to go against this view. All the sāndhāras just mentioned were brick structures on granite bases, whereas the Vijayālaya Coḷeśvara is built entirely of granite. However, this monument at Nārttāmalai is located in an area where clay is absent. Since it stands in front of two rock-cut temples it may well be that the material excavated from these caves was used in the construction of the Vijayālaya Coḷeśvara. We would like to add a rather bold suggestion, viz. that this Śaiva shrine — which was not raised by the Early Coḷas and obviously received its present name referring to the first Coḷa king much later — was originally meant for

perumal orientated to the west instead of to the east, it is the in which the two cave-temples were excavated. This orientation is rather surprising. It can only be understood if we assume that all three shrines were planned as one complex. If we are right, then Nārttāmalai presents an example of the practice of erecting buildings for all three main beliefs at one site. For one of the two caves was originally a Jaina sanctuary — changed into a Viṣṇu shrine — while the other cave has always been dedicated to Śiva. According to Balasubrahmanyam the latter was excavated in the seventh century year of the Pallava king Nṛpatuṅga, i.e. A.D. 862.³⁶⁾ Since the practice of erecting temples dedicated to Viṣṇu and the Jina was abolished in the reign of the Early Coḷa kings — being themselves ardent devotees of Śiva — the shrines at Nārttāmalai were definitely not the work of an Early Coḷa architect. On the other hand, the Pallavas were not the only people to have been concerned with regard to the three great Indian beliefs, for the Western Gaṅgas and the Bāṇas — to mention only the communities of the areas surrounding the Kāraṇḍīyam — also constructed sanctuaries in honour of Śiva, Viṣṇu and the Jina in one and the same site. However, the śikhara in the Western Gaṅga and Bāṇa tracts all show the bell-shaped profile and are, therefore, among others, strikingly different from the type of roof common in the Pallava territory.

In view of all this we have to conclude that the Vijayālaya Coḷeśvara at Nārttāmalai carrying a śikhara with a straight profile was a Pallava monument erected between A.D. 860-870. As from this date the origin of the Early Coḷa style becomes evident, for, it is obvious that Pallava architects had been working at Nārttāmalai during the reign of Vijayālaya and not more than a decade before Aditya I came to power. They probably trained local craftsmen while constructing among others these three shrines. The moment they were commissioned by Aditya I to erect karrali or stone temples in the granite-less delta, these early sthāpatis with their local (Muttaraiyar) trainees were confronted with a deficiency of building-material. Furthermore, they were specifically requested by the king to accommodate (three) deities in the exterior walls of the vimāna, as all later Coḷa kings did (p. 179). So, they reduced the height of the sanctum — normally a tritāla as represented not only at Nārttāmalai but also in the Palar area — and were not long before the Vijayālaya Coḷeśvara was designed the large buildings at Uttaramallūr were completed. Moreover, they reduced the complicated layout of these buildings when they started on the shrine at Tiruppalanāṁ.

This reduction process continued in the delta where scarcity of granite was indeed responsible for the — in a developing style — rather remarkable defining series of III-5-c, II-4,3-b, II-2-b and I-2-a vimānas. In this connect-

ion it will be pointed out further on that the temples constructed between A.D. 895-910 in and around Koḍumbāḷūr, situated in a granite area, are all ekatalas, as if to indicate that only the distance from the site to the source of granite was a criterion in the decision of an architect to raise an ekatala or a dvitala shrine.

Before turning our attention to these not yet discussed, tall monuments in the Tiruchirappalli District, we shall first continue our survey of the smaller but not necessarily older building at Kannanūr.

The Subrahmaṇyeśvara at Kannanūr (Pl. 88; appendix 14, no. 7).

The Subrahmaṇyeśvara with its round śikhara cannot be contemporary with the koyil just discussed, nor with the Muttaraiyar shrines characterized by square roofs. This can be concluded not only from the bell-shaped profile of its śikhara, but also from the way the kapota is executed. We may elaborate this same point, using as evidence particular features of the Vālīśvara at Tiruvālī of the Talinātha koyil at Tiruppattūr and of the Sundareśvara at Tirukkattai. Geographically, the last two monuments are located not far from Kannanūr; naturally, the four temples represent different periods. However, they have two features in common, i.e. the row of running animals over the kapota instead of the normal, seated vyālis, and the kūdus which are small circles. Sourin Rajan dated these monuments as follows (their layout according to our type has been added between brackets):

Kannanūr	A.D. 845-860	(I-1-a/1-A-0);
Tiruppattūr	A.D. 890	(II-3-b/1-8-?);
Tiruvālīśvaram	A.D. 890	(II-3-b/8N-A-0); 8N=blind niche;
Tirukkattai	A.D. 915	(II-2-b/1-A-0).

At Tiruvālīśvaram not one inscription is earlier than the days of Rājaraṇya at Tiruppattūr a record dated in the 4th regnal year of the Pāṇḍya king Viśayadayan (A.D. 868) mentions the Karrali 8atharar, i.e. the god of the stone. This inscription does not necessarily refer to the present building. At Tiruppattūr, for instance, the same king is mentioned in a record dated A.D. 872, and inscribed on the walls of the Airāvateśvara, though it refers to a Pidari shrine which no longer exists.³⁸⁾ In such cases there are two alternatives. Either the stone with the inscription was re-used in the wall of a much later temple, or the shrine referred to simply disappeared and the inscription was always at its present location on another building which is therefore contemporary with the inscription. This means that the shrine at Tiruppattūr can also be younger than its oldest record which may refer to a koyil no longer in existence.

In our opinion all monuments with the unusual kapota should be dated later A.D. 860. We shall substantiate this point by comparing the koyil at Kannanūr. The small shrine at Tiruppūr (appendix 14, no. 4), a bonafide Muttaraiyar monument with a square, bell-shaped śikhara and bare walls. The dissimilarity of Subrahmaṇyeśvara with a Muttaraiyar building will then become evident (Pl. 89). The shrine at Tiruppūr shows the same projecting part under the grīvā niche as the temple at Kannanūr. However, this is the only similarity. In all other respects the two buildings belong to different periods or to a different regional style. At Tiruppūr (Fig. 55b, p. 279) the vyāli frieze follows its own, straight course, whereas at Kannanūr (Fig. 55c, p. 279) it follows the contours of the grīvā niche. But the most remarkable difference — apart from their śikharas — is that between the shapes of their kūḍus which are half open at Tiruppūr but closed and placed above the kapota edge at Kannanūr. Moreover, the shrine at Kannanūr has niches complete with half niche pilasters, lintels and makaratorṇas. The koyil at Tiruppūr displays none of these fundamental details. The geographical location of Kannanūr (Map 3) explains the peculiarities of this fringe temple, for it is at best a mixture of two styles, with basic concepts originating in the Pāṇḍya country to the south, which were enriched by the Early Coḷa concept of the niche. Soundara Rajan, on the contrary, classified the koyil at Tiruppūr as Pāṇḍya and that at Kannanūr as Muttaraiyar. This would imply a reversal of political territories north and south of the southern Vellar which is impossible. Moreover, we do not believe that the niches in the vimāna at Kannanūr are due to either Pāṇḍya or Muttaraiyar influences. Niches were not applied in the earlier koyils near by, and the Vāltśvara at Tiruvāltśvaram has only blind niches (Pl. 21b). However, the presence of inscriptions on the Subrahmaṇyeśvara at Kannanūr dating from the days of Āditya I and mentioning his regnal years do indicate that "...twelve miles south of the southern Vellar...the traditional boundary between the Cholas and the Pandyas..."³⁹ the expansive power of the new kingdom was felt and registered. Now the Coḷas built temples with round śikharas and niches. The political situation thus seems to confirm our explanation of the stylistic anomalies in the Subrahmaṇyeśvara. The niche and the round śikhara were adopted from the north; the frieze of running animals and perhaps the tiny, most closed kūḍus from the south as we shall see further on (pp. 292-93).

In view of its simple I-1-a/1-A-0 layout and the crudeness of its details we suggest that the Subrahmaṇyeśvara was constructed between A.D. 870-900. The more developed style of the shrine at Tirukkaṭṭalai (appendix 14, no. 8) dated ca. A.D. 910-15 by some authors and between A.D. 895-910 by us, seems to justify our suggestion. Since the shrines at Kannanūr and Panangudi (Pl. 18; appendix

14, no. 6) both display niches in the vimāna and an extremely crude decoration. We assume that the latter also dates from A.D. 870-900. Inscriptional evidence proving otherwise is absent. The simplicity of both structures can be explained by the political collapse of the Muttaraiyars, for they were expelled from most fertile lands east of the Grand Anicut by Āditya I.

In contrast to the shrine at Kannanūr, the koyil at Virālūr (appendix 14, no. 7) cannot be attributed to the 9th century. In order to demonstrate its 10th century and moreover Early Coḷa — character in spite of its location right in the heart of the Muttaraiyar area, we shall first briefly discuss the Muttaraiyar shrine at Kiranūr in combination with other bonafide Muttaraiyar shrines. They all have a square roof and are attributed to A.D. 845-860 by Soundara Rajan, which in our opinion, seems to be correct.

The Uttamadanīśvara at Kiranūr (Pls. 90a-b; appendix 14, no. 5)

This shrine has been renovated from the floor upwards, for its pranāla is located in the jagatī. We have to keep in mind the possibility that the present characteristics of this koyil are based on its original appearance. However, nothing can be said with regard to the grīvā niche, because its grīvā is round, whereas the grīvā platform is a square. In view of the fact that the original śikhara must consequently also have been square, we are then confronted with a niche-less vimāna I-1-a/0-A-0, standing on a IB1 base. This is interesting for the only other koyil with a similar base is located in the old tract of the Muttaraiyars along the borders of the Kāverī. It is the small monument at kātṭuppaḷḷi (p. 149, Pls. 58a-b) near Śendalai, once a capital of the Muttaraiyars. It concerns a I-2-a/0-A-0 koyil, crowned by a square roof. The vimāna at Śendalai also displays the IB-component in its base (Fig. 43a). Unfortunately, the superstructure is much later. Now, the Muttaraiyars fell under the jurisdiction of the Pallavas—as is obvious from, for instance, the names of villages after Pallava kings as we saw at Alambakkam (p. 280)—who were specialized in designing and carving IB1 bases (map 9), of which they produced beautiful examples (Pl. 72a). Moreover, the maṇḍapa built in front of the cave temple at Nārttāmalai, ca. A.D. 862 displays the same type of base—the only part left of the original hall—and was executed by experienced Pallava architects, or by Muttaraiyar sthāpatis working for the royal family of the Pallavas. In our opinion the otherwise almost unique IB1 adhiṣṭhāna at Kiranūr in the southern parts of Tamil Nāḍu can only be explained by contacts between both people. Consequently, the original koyil at Kiranūr must have been built during the period the Pallavas were ruling these parts, i.e. before the battle of

(A.D. 884 or 890). It was, in fact, probably constructed before Āditya I took over the Muttaraiyar area around Tañjāvūr from the Pallavas, i.e. around A.D. 870. The same applies to the dates of the monuments at Tirukkāṭṭuppaḷḷi (appendix 9, no. 25), Kaḷḷyapaṭṭi, Viśālūr and Tiruppūr (appendix 14, nos. 2-4).

Since the grīvā niches in the last three buildings all belong to the rudimentary type (Figs. 55a-b) covered with a square śikhara and these shrines — including that at Kiranūr — belong to the same primitive category, viz. I-1-a/-1-0, it is obvious that the I-2-b/1-A-0 temple at Virālūr with a round śikhara and full-fledged grīvā niches cannot be included in this group. On the other hand, it does not seem to belong to any other category represented in the Tirukkāṭṭuppaḷḷi District. The dating of this koyil is, therefore, rather complicated as will appear from the following discussion.

Bhūmīśvara at Virālūr (Pl. 91; appendix 14, no. 12).

This small koyil deviates from all the above mentioned monuments in three respects, viz. its I-2-b vimāna, which is unique in this region (map 5); its fully developed grīvā niche (Fig. 55-d); and its round śikhara. In view of its grīvā niche it cannot be contemporary with the koyil at Kaḷḷyapaṭṭi and other smaller shrines with a square roof. Therefore, it is either contemporary with the dvitalas in this region, all having square śikharas (appendix 14, nos. 8-11), or it belongs to another period. We believe there are sufficient arguments to date this ekatala in the second quarter of the 10th century, since it has too many bastions for an ekatala. The few inscriptions on the building all date from the 10th century but do not reveal its exact date, so we shall have to determine this by the architectural style.

There is one significant detail in this otherwise undecorated Śaiva koyil, viz. the presence of podigais under the kūḍus of the śikhara. We can only understand these superfluous podigais when we turn our attention once more to the Saptā Sthānas. Most of these buildings are dvitalas in which the central part of the walls projects. The podigais on the corners of these central bays are cut into the shape of a cross (Pl. 25), whereas in a -1- ground-plan they are flat T-shaped and unobtrusive parts of a temple wall. These striking cross-shaped podigai-blocks under the first kapota are repeated under the protruding part above the second kapota. The architects of the Saptā Sthānas extended this concept even to the grīvā niche, apparently in order to create an impressive regularity in the vertical composition of their temples. This idea of incorporating corbels into the grīvā niche must therefore have originated on a dvitala in which at least one part of the wall protruded. The new concept of śikhara kūḍus

carried by podigais instead of the usual lintels was immediately copied, and all other koyils along the Kāverī west and east of the Grand Anicut and in three temples at Koḍumbāḷūr the podigais are incorporated into the design of grīvā niches. This even occurs in cases where it is unnecessary i.e. above śikharaśāstas which do not have a central protruding part (Śrīnivāsanallūr, Nangavān). However, all these shrines are copies of the monuments at Tiruvēdikkudi and Tiruchchātturai (Fig. 39), except for the two Mūvar koyils at Koḍumbāḷūr which resemble the Pañcanādiśvara at Tiruvaiyārū.

The ekatala at Virālūr is not a copy, but it is a deviation as it has pilasters on each wall. It does not seem likely that its architect invented this as a completely new addition to a grīvā niche in a design which could never have had its source of inspiration. It is equally unrealistic to consider the importance of the I-2-b vimāna to be contemporary with the regular and well-balanced II-2-a and II-3-b and I-2-a vimānas, characteristic of the period between A.D. 870-900.

In view of all this, as well as the presence of a round śikhara on a shrine located in an area dominated by constructions with square roofs, and, more importantly, situated near Koḍumbāḷūr, we must conclude that the koyil at Virālūr was built after the time in which normally monuments with square śikharas were built, and during which podigais above grīvā niches became a common feature. When did this specific period end? The dates suggested for the II-2-b monuments (see appendix 14) show that there is hardly a consensus of opinion. Since we do not agree with the controversial attributions we have to analyse the evidence just mentioned before we can decide on the date of the shrine at Virālūr.

The Sundarēśvara at Tirukkaṭṭalai.

This koyil was dated by Balasubrahmanyam ca. A.D. 874 on the basis of an inscription on the śikhara record of the regnal year 3. According to Soundara Rajan this Rājasekhara is Gaṇḍarāditya. If this old inscription could be eliminated we would have a series of records running from A.D. 909 or 915 onwards. The building resembles Tiruchchātturai except for the fact that its makaratorṇas are better decorated and carved. It derives its individuality from features already known from the temples of the Pallavas, viz. the presence of rearing vyālis between the podigais decorating the corners, although these are also present on the palagais of the śikhara at Kumbakonam (Fig. 50, p. 250, Pl. 30). The lintel under the makaratorṇa is decorated with bhūtagaṇas, hamsas and the usual lotus petals is indeed a deviation. This feature, as well as the lively frieze over the kapota, shows the same freedom in ornamental details as for instance on the shrine at Kannanūr, but the basic shape of the building was copied from the Early Coḷas. This Coḷa

confirmed by the presence of another feature, viz. the fact that the vari — above the frieze of galloping animals — is interrupted by the niche in . . . , but present everywhere else. The same application of the vari can be seen at Tiruchchendurai and Nangavaram, on the two Mūvar koyils and the Mucudeśvara, all three at Koḍumbāḷūr, at Chittūr and probably also at Aḷḷūr, although in the last case a huge group of plastered sculptures obscures the view. The Agastyeśvara at Kilaiyūr with a round śikhara demonstrates the same feature as on the Agastyeśvara, situated in the same compound and crowned by a square . . . the vari is interrupted by the entire śālā.

The dvitalas among the Sapta Sthānas show five different ways of applying the vari on the hāra (Fig. 56, pp. 288-89, Pls. 23-26, 28). At Tiruppalanam the vari is interrupted and the niches in the karṇakuṭīs as well as in the śālās have . . . niche pilasters. The ugly plastered and fairly modern images in these niches are too large for the originally small koṣṭhas and consequently, obscure the composition. At Tillaisthānam and Tirukkandiyūr the vari is only present on the karṇakuṭīs and on the śālās. The śālā niche of the former, however, does not have this ornament. At Tiruvēdikkudi it is absent on the entire śālā and at the . . . of the kuṭīs and connecting walls, as on the Agastyeśvara at Kilaiyūr just mentioned. At Tiruchchātturai the undamaged vari runs uninterrupted along all . . . of the hāra. In contrast to the monument at Tiruppalanam the niche pilasters are here absent in the karṇakuṭīs and the śālās. The concept of a vari interrupted by the śālā-niches was almost certainly applied on the Pañcanādīśvara at Tiruvaiyārū, although this cannot be proved, since its superstructure has been renovated. In any case, the śālā over the first kapota of the shrine at Tiruvēdikkudi shows this arrangement. Here the śālā consists of two parts, the lower part decorated by pañjaras, the upper part by a niche cutting through the vari. Since this variation in different parts of the superstructure is striking . . . far as the Sapta Sthānas are concerned, and since the uniformity in the different parts of the superstructure seems to be restricted to dvitalas built in the area south of the undivided Kāverī, we may as well dwell upon this aspect a little longer. Surveying the roofs of these buildings, a few more peculiar features can be noticed.⁴¹⁾ In the first place there are "round shrines"⁴²⁾

on either side of the śālās of the monument at Tirupallanam, on the second . . . walls at Tillaisthānam, at Tiruchchātturai and on one of the Mūvar . . . at Koḍumbāḷūr (Fig. 56a-b), secondly, we notice dvārapālas on the second . . . walls at Tiruvēdikkudi, Tirukkandiyūr, Nemam and Tiruchchendurai. In the third place, all temples have either pañjaras, or slabs or niches in between the karṇakuṭīs and the śālās. In view of all this the dvitalas under discussion

can be characterized as shown below.

Fig. 56a. Characteristics of the superstructures on vimānas built in the Ka area and in the Tiruchirappalli District between A.D. 870-900.

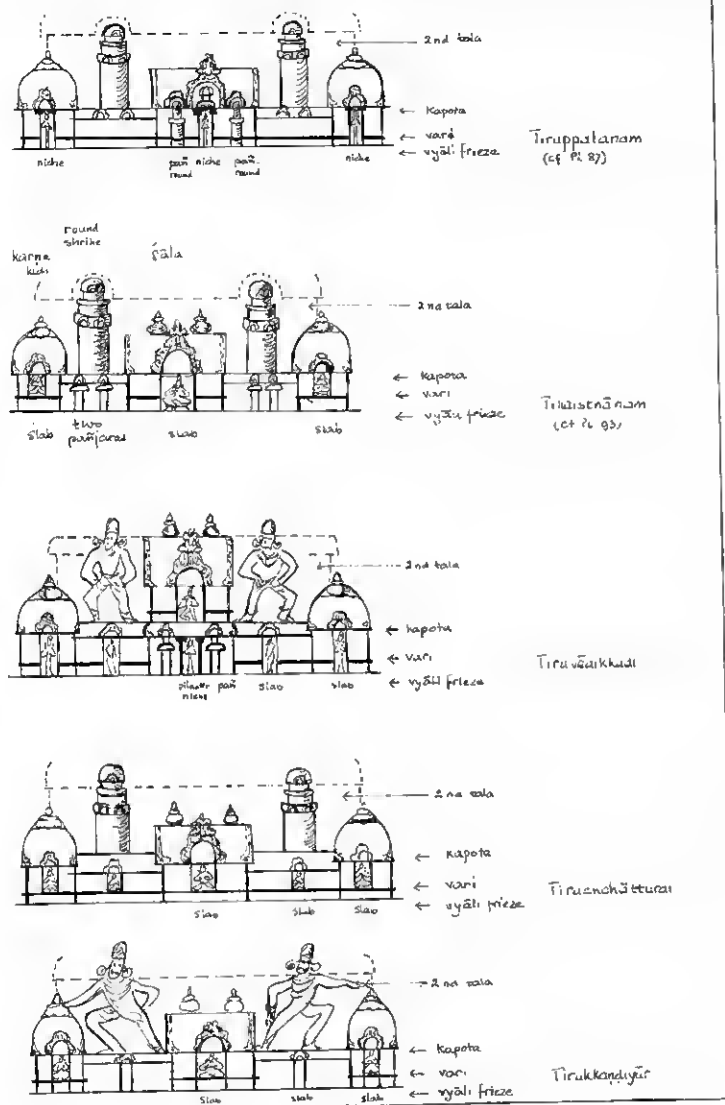
name of the village ¹⁾	first hāra wall śālā	second hāra wall	vari
Tiruppalanam (Pl.23)	niche + two plain round shrines	round shrines	interrupted by all niches
Tillaisthānam(Pl.24)	slab	two pañjaras round shrines	not along space and
Tiruvēdikkudi (Pl.25)	two stories "niche" two pañjaras	dvārapālas	not along and slab
Tiruchchātturai (Pl.26)	slab	slab round shrines	uninterrupted
Tirukkaṇḍiyūr (Pl.28)	slab	slab dvārapālas	not along space
Kumbakonam (Pl. 92a)	niche	niche figure one slab	interrupted all niches
Śrīnivāsanaḷlūr(Pl.31c)	niche	two pañjaras	? interrupted niche and pañjaras
Tiruchchennampūndi (Pl. 35a)	slab	two slabs	- interrupted śālā slab
Nemam (Pl. 54)	slab	slab	dvārapālas interrupted all slabs
Tiruchchendurai	two stories niche	two slabs	slab interrupted the śālā
Kilaiyūr(A)(Pl.33a)	two stories niche	slab	- not along
Kilaiyūr(C)(Pl.33b)	slab	slab	- interrupted śālā niche
Koḍumbāḷūr (Mv)(Pl. 93)	two stories niche	two slabs (removed)	round shrines (slab) interrupted śālā niche
Nangavaram	slab	slab	- interrupted śālā slab
Koḍumbāḷūr (Mc)	niche	pañjara	- interrupted śālā niche
Tirukkaṭṭalai } Chittūr }	niche niche	slab slab	~ - interrupted śālā niche

¹⁾ as the dvitalas at Anḍanallūr and Aḷlūr are either modern or too ruined to store it is impossible to trace the original features in detail. The superstructure of the dvitala at Chittūr has disappeared except for the base which allows us to assume the former presence of niches and slabs.

From this excursion into the development of the superstructure some conclusions can be drawn.

Firstly, all dvitalas built during the first two phases (Fig. 42, 1)

56b. Characteristics of the superstructures on vimānas built in the Kāverī area and in the Tiruchirappalli District between A.D. 870-900.



From this excursion into the development of the superstructure some conclusions can be drawn. Firstly, all dvitalas built during the first two phases (p. 215)

show experiments with the vari over the prastara. The koyils constructed in the third phase (Fig. 42) are identical, i.e. they all have a vari intervened by the central śālā niche, a concept which was also used in the experiment of the Śaḍayar Koyil at Tiruchchennampūṇḍi.

Secondly, the two shrines at Kilaiyūr are almost certainly not twin in the sense that they were built simultaneously. The Agastyeśvara has far more similarities with one of the Sapta Sthānas, i.e. the shrine at Tiruvēdikkudi, whereas the Coḷeśvara seems to belong to the third phase, i.e. to the group consisting of the monument at Nangavaram, the Mucukundeśvara at Koḍumbāḷūr and the Śreśvara at Tirukkaṭṭalai, which was the cause of this long discussion.

Thirdly, the shrine at Tiruchchendurai, the Agastyeśvara at Kilaiyūr and the Mūvar koyil at Koḍumbāḷūr have two things in common. They expose the unusually tall śālā of the hāra over the first kapota and they stand on a triangular adhiṣṭhāna. The monuments at Nangavaram (Chittūr) and Tirukkaṭṭalai as well as the Mucukundeśvara at Koḍumbāḷūr are placed on a straight IA2a base and are adorned with śālās which are as high as the karnakuṭṭis. None of the shrines display decorations on the walls of their second tala. The arguments to include the Coḷeśvara at Kilaiyūr in this last group in spite of its IIB1 shape can be invalidated by the observation that the design of its superstructure is too mature in comparison with that of the nearby Agastyeśvara and that the only reason which can explain the IIB1 shape of its base is the presence of exactly the same type of base in the Agastyeśvara. The basic difference in the shape of their makaratorṇas is another indication that the Coḷeśvara was later.⁴³⁾

In the fourth place the phenomenon of "round shrines" added to the walls of the second tala occurs only on monuments crowned by a square śikhara and connects the royal Mūvar koyil more than anything else with the royal Sapta Sthānas.

In the fifth place a dual development of building activities in the third phase can be observed west of the Grand Anicut and south of this tract, for dvitalas on a lotus adhiṣṭhāna resembling the Sapta Sthānas in many respects were constructed simultaneously with dvitalas displaying a far more severe appearance due to the absence of decorative elements such as the lotus base, the frieze, the dvārapālas and the "round shrine" attached to the walls of the second tala. Moreover, the dvitalas belonging to this second rather plain group differ from each other with regard to their kāls, for only the square type of kāl was applied without further additional ornaments. However, almost all monuments mentioned under nos. 1-26 in appendix 14 show the same dull, square type of pilasters. In view of the fact that they are located in a tract bordering

area in which uniformity seems to have been a curse (Fig. 50, p. 250) it looks as if trainees were commissioned to execute a standard type of shrine throughout the country-side around Koḍumbāḷūr which was the domain of the Irukkuveḷs.

Concluding our discussion of the Sundaresvara at Tirukkattalai we date this shrine together with the Mucukundesvara at Koḍumbāḷūr between A.D. 890-910, a period in which the koyil at Nangavaram came into existence (appendix 9).⁴⁴ Since the beautiful monument in Tiruchchendurai was also completed in this period, we are convinced that there existed a workshop responsible for all these buildings. Its top-class artists were assigned to the more important, royal, commissions, while the less qualified artisans were ordered to design and build the more modest structures. Of the stone temple at Tiruchchendurai we know, for instance, that it was a princess who ordered its construction (p. 110), and the Nāgar Koyils, which we shall discuss now, were also the result of a royal initiative.

Nāgar Koyils at Koḍumbāḷūr (Pl. 93; appendix 14, no. 10). The discrepancies in the dating of these two vimānas at Koḍumbāḷūr covers nearly one hundred years. We shall demonstrate that both monuments were built between A.D. 890-910. This is not a compromise between the opinions of Soundaraśāstran, who attributed them to the middle of the 9th century, and Balasubrahmanyam and Barrett, who dated them ca. A.D. 950. The difference of opinion results from the interpretation of an inscription in which the founder of this temple-complex is mentioned, viz. Budi Vikramakesari, the most illustrious Irukkuveḷ ruler. Before going into this matter, we first want to eliminate a simple locational problem. The lotus adhiṣṭhāna on which these two II-2-b/1-A-0 shrines stand, is a regional aberration (map 9). Normally we use such an anomaly in a distribution-pattern to date the shrine either before or after the period in which the specific regional variant dominated. However, we are here dealing with a large temple-complex which was located in the capital of the Irukkuveḷs and which originally consisted of three main shrines and many parivārālayas. We can well imagine that Budi Vikramakesari was anxious to construct buildings which were more beautiful than any other known temple in his territory at that time. The lotus adhiṣṭhāna was and still is the most splendid and elegant base ever designed in these parts of India. He must have noticed and admired the Pañḍinādisvara while visiting his Coḷa liege lord at Tiruvaiyāṟū. So, after the departure of Āditya I to the northern part of Tamil Nāḍu he commissioned the

most highly skilled men available to raise in his capital at Koḍumbāḷūr massive monuments in honour of Śiva, which copied the imperial example. As a result of this the best artists were occupied for years leaving the (re)construction of other koyils in the area to the less well-trained workmen. The monuments at Koḍumbāḷūr encountered no problems in erecting the walls of both stories. All features, especially the makaratorṇas, were obviously copied from the Saptasthānas. The only difference which we observed between the two surviving koyils concerns the decoration of the walls of the second tala. One of the buildings displays the small "round shrines", whereas the other has slabs in the same place. These "round shrines" are no longer exact copies of the Coḷa example, but have meanwhile deteriorated for they do not carry the tiny ekaśrī on their pretty, circular kapota but have merely a neck which disappears behind an almost closed curtain of the kūdu. In our opinion this feature reflects a later stage in the development of this Early Coḷa element, because it denotes a devaluation of the remarkable, round, and complete shrine displayed in the instance, on the walls of the Āpatsahāyeśvara at Tiruppalanam. In view of this the Mūvar koyils should be dated slightly later than the monuments commissioned by Āditya I. The following argument may further substantiate this attribution.

The shrines at Koḍumbāḷūr are witnesses of an affluent society of a long past, and reveal an infinite love for details and great skill in expressing this feeling in stone. Most of the temples along the Kāverī constructed immediately after or still during the completion of the Saptasthānas, show the same fondling of the solid building-material (Fig. 42, p. 215, second part). Now, abstract concepts can be transferred and copied, but the skill and ability to carve out these abstractions in hard stone cannot. This dexterity only develops through practice.

Dating the Mūvar Koyils around A.D. 950 creates two problems. In the first place, there are no contemporary temples displaying a similar degree of skill. The second problem is that the temples built or renovated during this period all demonstrate a coarsening of details and, moreover, have different localities. As, for instance, the koyils at Tiruppattur (pp. 140-41), and Tiruvannamalai (pp. 118-20) both located in the Tiruchchirappalli District, and the small one at Tirukkalittattai in the delta (p. 139). These problems do not arise when the Mūvar Koyils are attributed to ca. A.D. 900.⁴⁵ Dating these koyils at the middle of the 9th century, as Soundara Rajan did, again creates problems. Compared these Mūvar Koyils with the Pāṇḍya style of the monuments at Kalaiyālai and Tiruvāḷṅkavaram, and with the Aivarkoil at Koḍumbāḷūr and the Taḷaḷai at Tirupattūr. However, we wonder how the essential differences could be

the following details could then be explained: the shape of the kūdu, the spacing of the vyālis, the profile of the kapota as displayed at Kaḷugumalai ⁴⁶⁾; the shape of the kūdus, the profile of the kapota, the blind niches in the vimāna covered either a small kapota or a flattened makaratoraṇa, the profile of the adhiṣṭhāna, the disappearance of the wall of the second tala behind the hāra, the galloping animals instead of vyālis, all of which are style characteristics of the Vāliśvaram at Tiruvāliśvaram ⁴⁷⁾; the ordinary IA-component of the Aivaraiyil at Koḍumbāḷūr, the only part left of this monument ⁴⁸⁾; the shape of the kūdu, the profile of the kapota, the presence of a vari over an IA2a adhiṣṭhāna, the pañjaras on the walls of the first tala, all characteristic features of the Talinātha at Tiruppattūr. ⁴⁹⁾ Soundara Rajan did not mention these differences and his only argument, viz. that Āditya I came to power only after the battle of Sripurambyam and therefore could not have commissioned the row of Śiva koyils along the Kāverī, is not very convincing. ⁵⁰⁾ Personally, we believe that Āditya I must have been a powerful king at the time of that battle, for he could organize an army, he could also organize building activities.

Barrett's arguments are based on a wrong assumption, or at least he should have tackled the problem from two sides. He believed that the Mūvar koyils belong to (his) second phase, i.e. between A.D. 940-970, because "The sculptures do seem to be a version, ... of the images at Tiruvaduturai and Punjai." ⁵¹⁾ A comparison with the icons at Tiruchchendurai and with those on the superstructures of the shrines at Kumbakonam and Puḷḷamaṅgai would have been more revealing because we fear that Barrett, for some unknown reason, accepted Balasubrahmanyam's arguments, we wonder what kind of reasoning the latter produced to date these temples so late.

Balasubrahmanyam's main source was the inscription of Budi Vikramakesari in which he devoted an impressive essay trying to discover its secret. In fact, the record is a genealogy of the Irukkueḷ chieftains ending with Budi Vikramakesari. Unfortunately, the scribe omitted to tell us when the king lived, but he calls him the ruler who conquered the Pallavas on the banks of the Kāverī ⁵²⁾ and adds that Vīra Pāṇḍya who "took the head of the Cola", was his enemy. ⁵³⁾ The first part of the sentence can only be understood if he participated in the battle at Sripurambyam, or any previous battle, for after that catastrophe nothing was ever again heard of the Pallavas in this part of India. ⁵⁴⁾ Now, we do know that Āditya I followed them right into their own territory, beating them there ⁵⁵⁾. The second part of the sentence implies that the unknown defeated Coḷa king fought together with Budi Vikramakesari against the Pāṇḍyas and was killed.

As the Pallavas are mentioned, the Coḷa ruler could be either Vijayālaya Āditya I. The latter conquered almost the entire Tondaimaṇḍalam, so the king must have been Vijayālaya about whose death nothing is known except that it must have occurred ca. A.D. 870. So far there is no problem. It seems to us that we are dealing with the understandable wish of an elderly king who more than twenty years afterwards (i.e. A.D. 890) still boasted of his victorious reign in which he was instrumental in breaking the force of the Pallavas, while his ally in another battle was killed by his powerful Pāṇḍya enemy. Balasubrahmanyam felt that no significance whatsoever should be attached to the fact that Budi Vikramakesari considered it worthwhile to report his victory over the Pallavas. According to him the only possible identification of Vīra Pāṇḍya could be the contemporary of Āditya II. We fully realize that we wrong Balasubrahmanyam by not going into his patient unravelling of family relations and political alliances, but we believe that he started from the wrong premise. He assumed that Vīra Pāṇḍya could only be the well-known king of that name mentioned in a script in which capitals are missing, Vīra Pāṇḍya can be read as vīra Pāṇḍya, Vīrapāṇḍya or even as vīra Pāṇḍya. According to us the last possibility is the most likely, for Budi Vikramakesari probably wanted to indicate merely that the Pāṇḍyas were mighty (vīra). It should be noticed that he did not mention the king of the Pallavas either. Why should he omit the name of his worst enemy (the Pallava) and that of his best friend (the Coḷa) and disclose only the name of a minor enemy, i.e. Vīra Pāṇḍya?

This is a rather brief attempt at interpretation of a controversial inscription and we are quite conscious of the fact that it is not given to an epigrapher to propose a definite solution of a problematic record and to put an end to the argument over the interpretations of talented epigraphists. Yet, we believe that we are right for we started out from the architectural style of the temple and subsequently discovered that the inscription, which can be interpreted in different ways, allows for a dating around A.D. 900. On the other hand, Balasubrahmanyam's point of departure was an equally stubborn assumption but he is faced with the problem of how to fit the two temples — impressive as they are due to their ornamentation — into the dull architectural style of the middle of the tenth century.

We should like to conclude this discussion of the beautiful Mūvar Kōṭṭa by stating that Budi Vikramakesari played a nasty trick with us by naming the king as Āditya — after either Āditya I or II — and Parāntaka — after either Parāntaka I or II — as the record discussed above informs us. Fortunately, Budi Vikramakesari gave us a monument which speaks a rich language through its style, although --

...les by way of its inscription.

Agnīśvara at Chittūr (Pls. 94a-b; appendix 14, no. 11).

The koyil appeared in a few previously discussed maps as an anomaly in two respects: it has a niche in its ardhamandapa (map 6 and Table B, p. 154) and it has octagonal pilasters on the walls of its vimāna (map 11 and Table E, p. 248). The first irregularity is caused by a badly executed renovation. This is demonstrated by the way the vestibule is attached to the vimāna. The pilasters standing on the corners of the ardhamandapa do not display their character of corner pilasters sufficiently clearly. They should either be attached to the corner pilaster of the vimāna or not be there at all. Moreover, the corbels of the ardhamandapa are angular, whereas those occurring on the vimāna are throated. So the present hall is obviously a later addition. As we have noticed at for instance Kaverumbūr, niches were often incorporated in the new parts of a renovated temple (p. 120). The *vari* above the *vyāli* frieze of the *prastara* is still unchanged. It runs the same course as at Tirukkaṭṭalai and Nangavaramas well as the Mucukundeśvara at Koḍumbāḷūr. Consequently, the original II-2-b koyil must have had a 1-A-0 layout. It resembles the last mentioned shrine in every respect except for the octagonal shape of its *kāls*. The only other koyil with a complete set of such pilasters is located at Nangavaram which has the same simple appearance as the other two monuments. In an area characterized by square and deviating forms should be interpreted as an indication that the building is comparatively late for there are no arguments to date the two shrines at Nangavaram and Chittūr before the period in which the square pilaster was popular. Therefore, we propose to include the Agnīśvara in the group of dvitalas built by the less skilled craftsmen of the workshop which produced the other dvitalas. This implies that this temple was also raised between A.D. 890-910. There is no inscriptional evidence contradicting this point of view.

A few monuments have not yet been discussed (appendix 14, nos. 23-25). They are the ekatalas in the eastern part of the Tiruchirappalli District at Kumārakottūr, Śōmūr and Perungudi, all indicated in map 5 and Table A as having a design deviating from the regional type. The small shrine at Alambakkam not far from the Sapta Sthāna area was not taken up as it did not appear on this map as an anomaly. Now that we know more about the architectural development in the Tiruchirappalli District than in the first pages of chapter three, we can finally try to settle these loose ends, starting with the temple which shows closest affinities with the Sapta Sthānas.

The Kailāsanātha at Alambakkam (Pls. 95a-b; appendix 14, no. 22).

This incomplete shrine has retained some of the refined features common to monuments built during the days of Āditya I. Due to its geographical position a comparison with the shrine at Melatiruppūndurutti seems permissible (Pls. 95a-b) with regard to their first talas. These indeed resemble each other including a feature which was introduced at Melatiruppūndurutti, the only eka-tala among the Sapta Sthānas, i.e. the podigai under the lintel over the niche and on the walls of the vimāna (Pl. 29b). A few other monuments of the same period also have this entirely superfluous ornament for it was applied in the dvitalas at Anḍanallūr, Nangavaram, Tirukkaṭṭalai, Allūr, and on the Agastyeśvara at Perungaiyūr (A.D. 890-892). Later on it appears also on the ekatalas at Perungaiyūr, Sōmūr, Tirumayānam (A.D. 935-940) and Kīlappaḷuvūr (A.D. 984), and on the dvitalas at Manampādi (A.D. 988-990) and Dadapuram (A.D. 1000-1006). From the list of examples it is clear that the tiny podigais incorporated in the framework of the elaborate Early Coḷa niche cannot be associated with either a particular regional preference or with a specific period. Since inscriptional evidence is lacking we can only determine the date of the Kailāsanātha at Alambakkam by way of its style and we therefore believe that this damaged ekatala was built by the less trained craftsmen who raised the dvitalas on a IA2a base in the Tiruchirappalli District (between A.D. 890-910). Being an ekatala, it is the counter part of the shrine at Melatiruppūndurutti which also shows a peculiar, superfluous podigai.

The Agnīśvara at Kumāravayalūr (appendix 14, no. 23).

This shrine can hardly be studied as it is hidden behind all kinds of additions, walls and other obstructions, but its extremely small size is obvious. Before renovation its tiny I-2-a layout cannot have included niches in the central bays. The present niches—added when the shrine was rebuilt—do not contain statues and are so narrow that they almost look like pañjaras or blind niches. The temple reminds us of the Agnīśvara at Tirukkāṭṭuppalai (p. 144), which demonstrates the same problem. The renovators of this last shrine never found a proper solution for the problem (Pl. 58b), but at Kumāravayalūr a more successful attempt was carried out. However, it is clear that without removing the entire base of an old Muttaraiyar temple, it is impossible to create sufficient wall space for proper niches in the new walls. So, the Agnīśvara at Kumāravayalūr must have been an old Muttaraiyar building, dating from before A.D. 870. At present it is a I-2-a/1-A-0 on a IA2a base, but originally it must have had a 0-1-1 layout.

The Śiva koyils at Sōmūr and Pernangudi (Pls. 96-97; appendix 14, nos. 24-25). These two shrines do not have the vimāna design common in this region. As I-1-a buildings they can be compared with that at Tiruppalturai (Pl. 56) rebuilt ca. A.D. 960 (appendix 9), i.e. long after the period in which II-2-b and I-2-a vimānas were constructed. Due to the absence of a vari we are inclined to date both Śiva koyils before the renovation of the temple at Tiruppalturai which already displays this element. Their vague Rājakesari records do not contradict such an attribution.

If we consider these monuments as examples of a transitional period in which only small shrines were built, exactly as in the Kāverī delta proper, then the Ekatala at Virālūr (appendix 14, no. 12) represents the end of the dvitala phase in this region. The six pilasters on its wall were still incorporated into the temple design but the dvitala construction which goes with it automatically, appeared just too much of an effort. So we suggest a date around A.D. 925 for this shrine which started this discussion in the first place (pp. 285-86).

1.2.2. The "Imkkuveḷ" temples in relation to the "Early Coḷa" Sapta Sthānas.

We should like to make a few final comments on the architectural activities observed in the region including the area around Tañjāvūr. Accepting the existence of a workshop, it is interesting to find a production rate similar to that which we noticed a century later (p. 165). The twenty-two monuments mentioned in Fig. 42, p. 215, the five koyils at Koḍumbālūr (the Aivar koyil, the three original Muvar koyils and the Mucukundeśvara), the temples at Tirukkaṭṭai and Chittūr as well as at Alambakkam add up to thirty examples of this workshop. As a few shrines undoubtedly disappeared completely we have roughly forty koyils built in the period of about forty years between A.D. 870-910, which coincides roughly with the reign of Āditya I. We should, therefore, not be surprised to read in a record of his great-grandson, Sundara Coḷa, that Āditya I was responsible for the string of lofty temples along the banks of the Kāverī from the mountains to the sea.⁵⁶ Admittedly, more than a quarter of these shrines was built under the patronage of Budi Vikramakesari and as they were spread over a wide area, they are not half as impressive as the massive concentrated power radiating from the Rājarājeśvara at Tañjāvūr. All the same, though built on a more human scale, they constitute a convincing and unique proof of the workmanship of a specific group of people.

Since this skill was the result of constant training, we may safely assume that under the prevailing conditions, i.e. the continual pressure for more shrines, a kind of atelier was indispensable. This explains the great difference

in quality with regard to decorations and sculptures which can be noticed between temples constructed in the early years of this atelier (the first of Sapta Sthanas) and those constructed later on (Tirukkandiyūr, Tiruvaiyārū, Tiruchchennampūṇḍi, Kumbakonam, Śrīnivāsanaḷlūr, Puḷḷamaṅgai, Laḷgudi, Tirukkaḷ and Koḷumbāḷūr) and again between this last group of temples and those raised by the younger craftsmen trained meanwhile in the atelier, the II-2-b vimānas on a 1A2a base upstream the Kāverī and in the Irukkuvel area.

When we combine these two training stages of the Early Coḷa artists with the three phases distinguished in Fig. 42 (p. 215), then the following scheme provides the complete — though compact — building history in the Kāverī area during the reign of Āditya I and his vassals.⁵⁷⁾

First stage:	<i>Nārttāmalai</i>	
A.D. 870-875(phase 1)	<i>Tiruppalanam</i>	workshop - first generation of sthāpatis and sculptors
875-880(phase 2)	<i>Tillaiśthānam</i>	
	<i>Tiruvēdikkudi</i>	
	<i>Tiruchchātturai</i>	
	<i>Melattiruppiṇḍurutti</i>	
	<i>Tirukkandiyūr</i>	
	<i>Tiruvaiyārū</i>	
Second stage:	(a) + (b)	(a) Workshop generation trained sthāpatis and sculptors
A.D. 875-890(phase 2 continued)	<i>Tiruchchennampūṇḍi</i>	+ (b) new generation of trained
	<i>Kumbakonam</i>	
	<i>Tiruveṇṇambūr</i>	
	<i>Śrīnivāsanaḷlūr</i>	
	<i>Puḷḷamaṅgai</i>	
	<i>Laḷgudi</i>	
	<i>Tirukkaḷavūr</i>	
	<i>Nemam</i>	
A.D. 890-910(phase 3)	(a)	(b)
	<i>Tiruchchendurāi</i>	<i>Alambakkam</i>
	<i>Kilaiyūr(A) 1)</i>	<i>Allūr(2x)</i>
	<i>Koḷumbāḷūr(Mv) 2)</i>	<i>Aṇḍanaḷlūr</i>
		<i>Nāṅgavaram</i>
		<i>Koḷumbāḷūr(Av)</i>
		<i>Tirukkattalai</i>
		<i>Chittūr</i>
		<i>Kilaiyūr(C)</i>

1) Capital of the Paḷḷuvettaraiyars.

2) Capital of the Irukkuvels, temple complex consisting of three main shrines and fifteen parivāḷaḷayam.

Some considerations about the significance of the podigai

In a study of Indian architecture it is common practice to pay attention to the podigai or corbel, whether it is a structural part or an ornament as in the case of vimānas. During the period of nearly 200 years discussed by us, the podigai changed only once. The first Coḷa corbel was introduced ca. A.D. 870 and came into existence through the blending of two older types. This impure shape was transformed some 125 years later. It would be incorrect to describe these two types as the result of a development, for the second type appeared suddenly on the walls of the huge Rājarājeśvara around A.D. 990.

In an effort to explain this abrupt change it would be an easy way out to regard all monuments decorated with the new type of corbel as not belonging to the earlier period. The purpose of this paragraph is to establish whether this point of view can be confirmed by stylistic features and inscriptional evidence on temples showing the new T-shaped podigai and on shrines displaying the old, angular corbel but carrying records indicating a later period of construction. We shall, however, start with a short survey of the first period in which the characteristic Early Coḷa corbel was created.

1. The first appearance of the Early Coḷa podigai ca. A.D. 870.

The first Early Coḷa podigai appeared in the years the Sapta Sthānas were erected. On these phantastic buildings we can trace the blending process of the smooth, angular podigai of the Cāḷukyas with the round, throated corbel of the Pallavas, for among the Sapta Sthānas different profiles occur on one and the same building (appendix 5, aspect 19). Basically the Cāḷukya corbel is a rectangular block of which the ends were chopped off at an angle of 45°. The Muttaḥariyar shrines employed the same, simple version which represents not so much a regional characteristic but rather the first primitive stages of every architectural style irrespective of the area in which its development takes place. This plain, angular corbel was used on the monuments at Tiruppalanam, Tiruvēdikkudi and Tirukkaṇḍiyūr. Next to this type, there are a few podigais at Tiruppalanam which are merely a bundle of ribs and resemble the Pallava corbel, though they already have an angular profile and a small vertical fascia. A more refined vers-

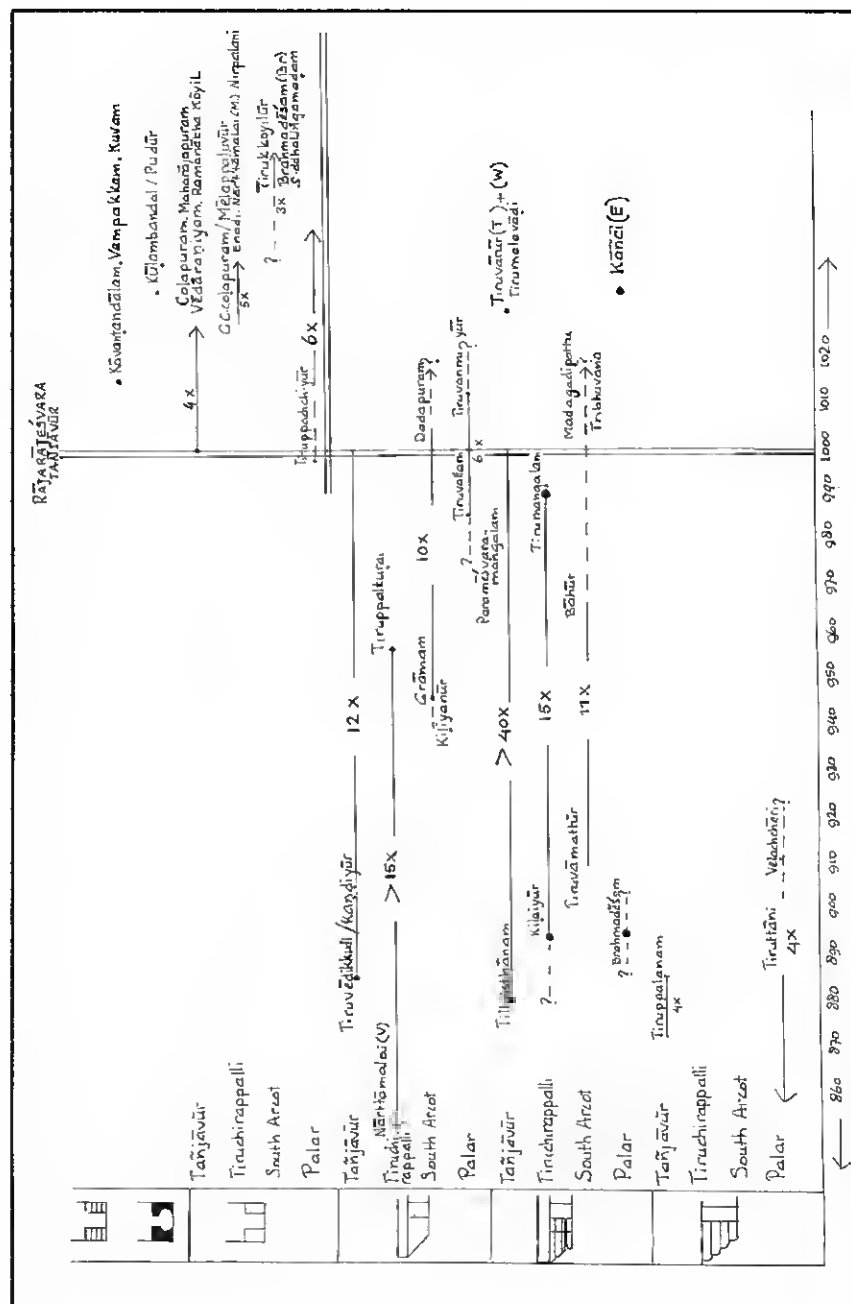


Fig. 57. Approximate appearance, disappearance and frequency of the *Cola podigai*, per district (Br = Brahmarāṣṭra; Ty = Tyagarāṣṭra; W = Wanyaganātha; F = Ekambaranātha).

on is the throated podigai consisting of equally wide ribs held together by a taraṅga or median band, a type tried out again at Tiruppalanam, Tillaisthānam, Tiruvēdikkudi, Tiruchchātturai and Tiruvaiyārū (Pls. 23-24, 27b). This intermediate form developed into the third and last type — the throated podigai with median band and a deep groove at the bottom which was applied without exception on the shrine at Melatiruppūndurutti (Pl. 29b). However, this final form of the Early Coḷa podigai did not appear out of the blue, for some of the corbels on the monuments at Tillaisthānam and Tiruvēdikkudi have an incision at the same place.

After the Sapta Sthānas came into being, the sculptors could choose from the various forms invented by the architects of these temples. Fig. 57 shows that this indeed happened. Both the angular and the throated podigai occurred side by side. It is equally clear, though, that the throated corbel was quite angular in the delta.

Two remarks should be made here. Firstly, we do not notice a similar quest for an acceptable corbel in the shrines located west of the Grand Anicut (appendix 14). They have either the angular corbel or its throated version. Had these temples been older than the Sapta Sthānas, then the architects of the latter would never have had to cut and saw bits and pieces out of the corbel-blocks in order to create a form which existed hardly fifty miles further west on the borders of their old homelands. So in this respect also the sthāpatīs of the Sapta Sthānas appear to have been pathfinders. Secondly, the corbels of the koyils at Tiruttāni and Veḷachchēri, both in the Palar region, are partly designed according to the Pallava idiom showing ribs without grooves. However, the small vertical fascia above these ribs deprives them of their Pallava character, since the Pallava corbel has ribs running up against the uttira. In this respect these shrines are transitional and should be attributed to the turn of the century.

It must be pointed out here that the small vertical fascia immediately above the curved or ribbed profile of a corbel is not an invention of the Early Coḷas, for it appears already on the Bhoganandīśvara at Nandi, a temple supposed to have been built by Bāṇa architects in the very beginning of the 9th century.⁵⁸⁾ This small detail somehow greatly attracted the early South Indian sthāpatīs, for it was applied not only in the Bāṇa country and in the Palar area at Veḷachchēri and Tiruttāni, but also in the Western Gaṅga tracts, for instance, at Kamadahalli, and far to the north in the land of the Eastern Cāḷukyas, for instance, at Biccavolu.⁵⁹⁾ However, the combination of an angular profile in which ribs (Veḷachchēri) and a groove (the Sapta Sthānas) were carved out, does not occur in the other buildings just mentioned.

7.2. The transformation of the shape of the Coḷa podigai ca. A.D. 990.

As we already saw, the architects of the Rājarājeśvara introduced the T-shaped podigai. This T comes about by not chopping off part of the median band at an angle of 45° , as a result of which the rectangularity of the original corner block is partly maintained.

We shall now have to ascertain whether the Rājarājeśvara is indeed a stylistic landmark indicating a new period, not only in the delta, but throughout the Coḷa country. Let us first review the situation in the delta.

7.2.1. *The introduction of the T-shaped podigai in the Kāverī delta and its significance for dating temples.*

In the previous chapter we arrived at the conclusion that the construction of the Rājarājeśvara absorbed most of the available craftsmen with the result that only in a few cases of emergency temples were renovated or newly erected. The almost complete absence in the delta of shrines constructed during the late reign of Rājendra I, seems to confirm this view. According to Balasubrahmanya only three koyils were taken in hand, viz. a paḷlipadai to inter the mortal remains of a queen at Ramanātha Kōyil, originally called the Panchavan Mahēśvaram (A.D. 1019) and two shrines which were renovated, one at Tirumala rebuilt between A.D. 1013-1026 and the other, the Tyāgarājeśvara at Tiruvārūr reconstructed ca. A.D. 1030.⁶⁰⁾

In addition to these three monuments we may draw attention to the Mahānātha in the compound of the Tyāgarājeśvara, and four village shrines at Vēdār, Coḷapuram and Mahārājapuram as well as the Amman koyil in the compound of the Sundareśvara at Mēlappaḷuvūr (appendix 11, nos. 29-32, 34-37).⁶¹⁾

In order to receive an impression of the essential, stylistic differences between monuments raised during the reign of Rājarāja I and the koyils mentioned, which were designed by architects working in the meantime on the large temple complex at Gaṅgaikoṇḍaḷapuram, we have listed the details of these koyils in Fig. 58, including those of the Amman shrine at Gaṅgaikoṇḍaḷapuram. We also entered the shrines at Puñjai and Tiruveṅkādū, because they are considered to be the last vimānas built during the reign of Rājarāja I (Figs. 52, 54 pp. 252-62).

From Fig. 58 some conclusions can be drawn. First of all it is evident that the shrine at Puñjai should not have been included for it is the only one of an A component in the base. The rounded kumuda (B) is part of the vimāna of all other monuments. Secondly, it appears that the temples with

58. Characteristics of temples along the Kāverī and in the delta built between A.D. 1000-1044.

Name of village	characteristics ¹⁾									
	layout	base	vari	upāna	kāṭ	podigai	bhūtagaṇas	kapota	kumbhapañjara	mūnai
Paṇḍi)	I-1-a/1-B-1	IA2a	+	-	OMS	Th	+	-	-	-
Tiruvēṇkāḍū)	I-2-a/1-A-0	IIB1	-	-	S	Th	+	-	-	-
Mēlappaluvūr	I-2-a/1-A-1	IB2a	-	L	S	T/Th	● ²⁾	-	-	-
Īraṇyam (Fig.59c)	I-1-a/0-A-0	IB1	+	L	S	T	+	-	-	+
Manātha Kōyil	I-1-a/1-B-3	IB1	+	L	OR	T	●	-	+	-
Īrājapuram	I-2-a/1-B-3	IB1	+	?	OS	T	+	-	+	+
Paṇḍuram (Pl.79)	II-4-b/1-B-1	IIB1	+	H	O	T	●	-	+	-
Paṇḍar shrine GGC ³⁾	II-4-b/3-B-3	IB1	+	H	S	T	+	+	+	-
Tiruvārūr (Wan)	I-1-a/1-A-0	IIB1	+	-	O	A	+	-	-	-
Tiruvārūr (Ty)	?-5-c/1-A-1	IIB2a	+	-	RMS	Th	+	-	-	+
Paṇḍalavāḍi	II-2-b/1-A-3	IIB2a	+	-	O	Th	+	-	-	-

- = present

- = absent

• = high upāna

L = lotus upāna

O = octagonal

Th = throated

T = T-shaped

M = polygonal

R = round

● = bhūtagaṇa frieze replaced by a border of lotus petals.

the kapota above the niche in addition to the usual makaratoranas; the plain jagatī is slightly curved but without lotus petal decoration as in Cāḷukya temples.

T-shaped podigai combine this feature with a high or lotus upāna and with the characteristic vyāli frieze above the rounded kumuda. Of course, the Wanyaga-
Pura at Tiruvārūr does not stand on a lotus upāna, since its huge lotus jagatī
is selfsufficient and the lower part of the koyil at Mahārājapuram cannot be
studied as it is hidden by a thick layer of clay.

In the third place, we see that the Tyāgarājaśvara at Tiruvārūr, renovated
A.D. 1030⁶²⁾, displays the throated podigai, whereas the paḷlipaḍai at Rama-
na Kōyil dated A.D. 1019 is decorated with the T-shaped corbel. This seems to
indicate that there was no abrupt switch from one form to another, at least not
in the villages where the memory of older shrines still lingered on. This point
can be further illustrated by the only other koyil situated in the compound of the
Paṇḍareśvara at Mēlappaluvūr. We know that a Paḷlueṭṭaraiyar chieftain commis-
sioned a temple at this place in the days of Rājaraḷa I (appendix 11, no. 37), which

was undoubtedly the koyil just mentioned. Here we see three types of podigai viz. the new T-shaped corbel, the throated podigai and the type in which cal lines are carved out. The presence of the older, main shrine apparently prevented the spontaneous acceptance of the new type of corbel. The same is true to the Tyāgarājeśvara and the Wanyaganātha at Tiruvārūr, both situated in the same compound as the last Śembyan Mahādevī monument, viz. the Acaleśvara. The latter displays the throated podigais and the curious ground-plan (III)-5-c. The carvings of the Tyāgarājeśvara copied not only the throated podigai of the main building but also its unusual layout. Since the Tyāgarājeśvara is the main shrine in the compound, whereas the Wanyaganātha is only a subsidiary koyil, though situated within the same prakāra—we believe that around A.D. 1030 the old, probably tiny, brick, main shrine was replaced by the far more impressive vimāna of type (?)—5-c, while the Wanyaganātha received the features of the preceding main koyil. This would not only explain its IIB1 type of base and its 1-A-0 layout, but also its angular podigai.

The third renovated monument with an old-fashioned podigai is located at Tirumalavāḍi. It was pulled down in A.D. 1013 at the orders of Rājārāja I. Its old records were re-engraved in A.D. 1026 (appendix 11, no. 34). Its structure made a selection of known types and features prevailing in the delta since the time of Āditya I, for it has a II-2-b vimāna and a IIB2a base, typical of Śembyan Mahādevī's style, but displays the octagonal kāl characteristic of 11th century architecture in combination with a 10th century, throated, podigai (cf. Fig. 53).

From the above discussion it is clear that the throated corbel was usually applied in the Kāverī delta when a new koyil was erected on an old site. This obvious attachment to a traditional shape is also demonstrated in the architectural details. However, whenever a temple was constructed at a new site—indicated by the complete absence of inscriptions dating from before the 11th century—the T-shaped podigai in combination with the vyāli frieze appears to have been a standard element. From Fig. 58, we also learn that there is a tendency to replace the charming row of bhūtagaṇas by a rather dull border of lotus petals. The use of the pota as alternative of the makaratorṇa was tried out on the walls of the main shrine in the Gaṅgaikoṇḍacoḷeśvara at the capital of Rājendra I (Fig. 59). The three-dimensional kumbhapañjara was applied rather frequently. On the other hand, we do not notice any structural changes in the layout of the garbhagrha or the ardhamandapa.

The above observation with regard to the introduction of kumbhapañjara can be added to the features which in our opinion are characteristic of the period between A.D. 870-1044. All these elements are tabulated in Fig. 60 (p. 304).

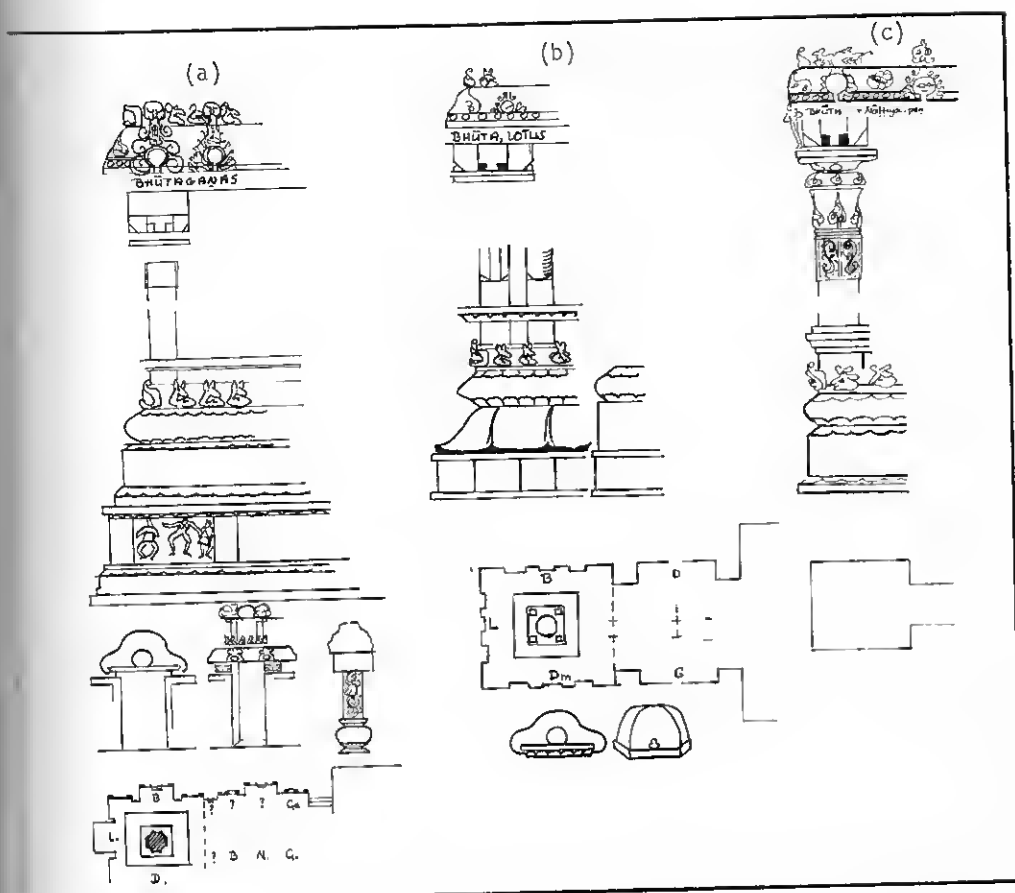


Fig. 59. Three examples of the Middle Coḷa style of temple architecture:

- a) the Amman shrine in the compound of the Gaṅgaikoṇḍacoḷeśvara, Gaṅgaikoṇḍaḷapuram;
- b) Gaṅgaikoṇḍacoḷeśvara, Kūḷambandal;
- c) Vēdāraṇyeśvara, Vēdāraṇyam.

In addition to changes in decorative details such as the kumbhapañjaras and maratoranas (Fig. 59a), we should like to draw attention to the drastic alteration of the profile of the kapota and the drifting position of the kūdu. The border of circles is now placed higher up on the kapota and a vertical fascia is added underneath. This type of profile became common not only in the delta but also in the Talar area (Fig. 59b) and the Tinnelveli District (appendix 16, fig. b). In the delta two types occur simultaneously in the 11th century (Figs. 59a and c). The kūdu seems to have completed its transformation from a horseshoe-shaped ornament into a circle (Fig. 59b), although it should be remembered that this type of kūdu existed already on the kapota of the base and the prastara at Kutaiyam dating from A.D. 986 (p. 193, note 68; Fig. 41c, p. 211).

Fig. 60. Basic changes in and additions to the temples in the Kāverī de-
between A.D. 870-1044.

	I = 870-900	II=900-969	III=969-985	IV=985-1000	V=1000-1024
height	tri dvi eka				
layout	A B		1)		
niches in ardhamā- ndapa	0 1 3	x		2)	x x x
niches in vimāna	1 3	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
pañjara		oooooooooooooooooooooooooooooooo	oooooooooooooooooooooooooooooooo		o o
kumbha- pañjara		oooooooooooooooooooooooooooooooo	oooooooooooooooooooooooooooooooo		o o o o
podigai	A T	*****	*****	*****	*****
bhūtas	B	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	BBBBBBBBBBBBBBBB
lotus	L				
rafters					
makara- toraṇa	M	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	MMMMMMMMMMMMMMMM
kapota above niche	K				
profile kapota	S O	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS

1) raised on local initiative. 2) built by wealthy citizens.

S = straight profile; O = ogeed or bell-shaped; - = applied once;
- - - = applied incidentally; --- = applied throughout.

Reading the columns vertically each phase is distinguished by a characteristic sequence of heights. The basic difference between phases I and II is the introduction of the false antarāla (+). The appearance of the pañjara is the difference between these two first steps in the development of the Early Coja style. The differences between phase II and III are the addition of niches in the wall of the ardhamandapa and the disappearance of the pañjaras. In phase IV we note that the architect had a freedom of choice with regard to the layout, the number of niches in the vimāna and the application of pañjaras on the walls of either the vimāna or the ardhamandapa. At the same time the three-dimensional

kumbhapañjaras were introduced as a new decorative element. After A.D. 1000 (phase V) some ornamental changes occur, viz. the angular shape of the podigai was occasionally altered into a T, the bhūtagaṇa frieze could be replaced by a śaṣṭakāṇḍa, the makaratoraṇa by a small kapota and finally, the roundish profile of the main kapota could become bell-shaped and carry its border of circles slightly higher up while the layouts show all possible combinations of old types.

In view of these observations we can conclude that the architects of the first three phases were experimenting with the shape of the structure itself, whereas in the last two phases ornamental aspects of the building were emphasized. After A.D. 1000 the heart of the temple complex became a less important element in the minds and hands of the designers and artists. A re-orientation must have taken place towards other structured details, such as gopuras, taṇḍapas and shrines dedicated to minor deities. Consequently, the last decade of the 10th century in which the only contribution was the introduction of the kumbhapañjara, seems to mark the transition from the Early to the Middle Coḷa period. This implies that any discussion of Middle Coḷa temples at village level will have to focus on other structures of the temple complex including their ornamental details, for a further study of the distribution-patterns of the layouts and the vertical composition of the main shrines will merely demonstrate an irregular pattern in the Kāverī delta. Whether this is also the case in the Palar region is another problem but it certainly does not apply to the two Coḷa pyramids. Therefore, we shall conclude our study with a review of 11th century architecture in the old Pallava domain followed by a discussion of the Rājaraṣeśvara and the Gaigaikoṇḍacoḷeśvara.

2. The Palar region

In the discussion of the vari, the upāna and the kāl, it became evident that in the Palar region monuments with T-shaped podigais are characterized by more than this new ornament. (pp. 228-233, pp. 236-243). Apart from the podigai, the innovations in the Kāverī delta were restricted to the bhūtagaṇa frieze and the decoration above the niches. The monuments in the Palar area show more variations. First of all, it is remarkable that the T-shaped podigai was not accepted as entirely satisfactory and was changed into a kind of a drop (Fig. 57, p. 300). A second, major alteration concerns the profile of the kapota (Fig. 59b, p. 305). The vertical fascia under the border of circles became a permanent feature in contrast to the Kāverī delta where it was applied only occasionally. In the third place, karukūṭis appear on the grīvā platform, a conception as old as the Rathas at Māmallapuram. A fourth obvious deviation from the Coḷa idiom is the preference for

Fig. 61. Tentative clustering of monuments in the Palar area built during the 9th-11th centuries, according to their "Palar" and/or Coḷa characteristics.

Palar idiom ca. 850-1044 - layout -1-/1-A-1 - pilaster (decoration) square - base IA2a - (makaratoraṇa)	Coḷa idiom ca. 950-1044 ? - layout (+pañjaras) -2- - pilasters ORSM - base I (1)B of IA	
Kāñcī (Sok) Mēlpādi (Coḷ) Tiruvallam	Kāñcī (Ek) Tiruvadandai Tirumaliśai Mēlpādi (Som) Vim. ← Paramēśvaramaṅgalaṃ → Ardh. ↑ S ↓ S	- śikhara (truncated) - podiṅgal I.A. IIIc.
Vempakkam ²⁾	Kūḷambandaḷ Pudūr Kuvam Tiruvonriyūr Tirupachchiyūr Tirumlaivāyil ↓ P ↓ P ↓ S ↓ S ↓ S ↓ S	- śikhara (f) - podiṅgal (tr-b)
Tiruvanmiyūr Tiruttāni Veḷachchēri Brāhmadēśam Takkōḷam ³⁾		- podiṅgal - foot board vari.

- 1) Due to its central protruding bay this koyil is related to the Coḷa
- 2) The modern, round, brick śikhara of this temple does not necessarily indicate the original shape of its roof.
- 3) This temple shares its details with all others mentioned in this cell except for its 1B1 base, which might indicate its Bāṇa origin.

the apsidal shape, be it applied to the entire building or merely to the super-structure. A fifth remarkable phenomenon is the appearance of a kind of canopy above the image of Dakṣiṇāmūrti (p. 238), and finally, the frieze of bhūtagaṇas is occasionally substituted by a border of lotus petals at one or more places under the uttira. All these features as well as the monuments on which they occur, are listed in Fig. 61.

These deviations from the Early Coḷa style—which prevailed in the delta till far into the 11th century (cf. the Tyāgarājeśvara at Tiruvārūr, dated A.D. 1030)—do not occur in equal measure in the Palar monuments discovered so far. These shrines can be divided into four groups, viz. the koyils at Kāvaṇṇandālam and Vempakkam as well as the Sokkeśvara at Kāñcī, which resemble each other in certain respects; the monuments at Kūḷambandal and Pudūr which could almost be called twins, the tritala at Kuvam which should be included in the group of tritalas already discussed in the context of the upāna (pp. 236-43), and finally, the Viṣṇu Perumals at Tirumaḷiśai and Tiruvadandai which are stripped of any sign of individuality of their own, and which we would rather consider as standardized models built in strict accordance with the fixed rules laid down in the śāstras.

In order to emphasize the character of each cluster, we shall now discuss these four groups of monuments one by one.

The koyils at Kāvaṇṇandālam, Vempakkam and Kāñcī, (Pls. 99a-b; 98; 71a-b and 100; (the Sokkeśvara) appendix 15, nos. 20-21 and 24).

The Coḷeśvara at Kāvaṇṇandālam can be attributed to ca. A.D. 1016 on the basis of an inscription on the Viṣṇu temple in the same village. No reliable inscrip-tional evidence is available with regard to the other two shrines. The Śiva temple at Vempakkam is, unfortunately, a ruin and moreover, almost permanently submerged in the centre of the Poinee lake, an irrigation reservoir. The Sokkeśvara was reconstructed about ten years ago. Nevertheless, both monuments have retained many of their remarkable and intriguing features.

The podigai.

The Sokkeśvara has a straight forward, T-shaped podigai. At Kāvaṇṇandālam and Vempakkam the slanting part on either side of the T is ribbed and occasionally the T is transformed into some kind of hook as at Kāvaṇṇandālam (Pls. 71a, 98 and 99a).

The prastara.

With regard to this complex element the three temples resemble each other, for

the profile of the kapota is bell-shaped and adorned with excessively *śū* dus cutting across the border of circles and the vertical fascia. Most *śū* kūdus are literally decapitated. The circles in the kūdus of the Sokkes depict scenes of liṅga worship framed by a leaf-like ornamentation flut up; at Vempakkam the kūdu consists of large scrolls surrounding a human (Pl. 98); at Kāvaṇṇandālam the kūdu is only superficially carved. Turning attention to the vyāli frieze, we notice experiments with the "vyālis" on the corners which are in fact makaras. At Kāvaṇṇandālam they still are the type common in the 10th century, viz. a fearsome head with eyes, ears, up-trunk and a wide open mouth displaying a warrior with a sword; at Vempakkam this aggressive animal has turned into a smooth form reminding us of a lotus, decorated with rope-like ornamentation; at Kāñcī(S) the makaras have been carved into a streamlined projection (Pl. 71a-b).

The makaratoraṇa.

At Vempakkam the makaratoraṇa still resembles those of the Coḷas (appearing at Kāvaṇṇandālam we find loose scroll-work framing deities which stand on a protruding pedestal (Pl. 99a); at Kāñcī(S) the basic ingredients of the toraṇa are present, but they are remodelled in such a way that the ornamentation is more like the frame of a picture (Pl. 100). Apart from these strange makaratoraṇas on the walls of the ardhamandapa, we are also confronted with a kapota carved by an ordinary makaratoraṇa on the walls of the vimāna (Pl. 71a).

The kāl.

All three monuments share the exaggerated lotus petals under their palapa. In other respects the kāl̥s vary considerably. At Kāvaṇṇandālam there are square panels instead of the normal mālāsthānas and the fine quality of the decoration of the kalaśa and the kumbha can best be compared with that at Tirumullaivēḷi (Pl. 74 and 99b). The panel decoration at Vempakkam is of a coarser quality, but the kāl̥s are attractive and remind us of those of the simple, carved panels at Vellālam (Fig. 47b, p. 229; appendix 15, no. 16). The pilasters at Kāñcī(S) on the other hand, are rather awkwardly decorated with a rudimentary mālāsthāna (Pl. 99b-100), and resemble those at Mēlpādi (Fig. 47a, p. 229).

The superstructure.

Unfortunately, the original śikhara of the shrine in the Poinee lake has disappeared. At present, the badly damaged roof is a circular, brick construction. The Sokkeśvara at Kāñcī has a granite dome of enormous size, due to the absence of the two extra pilasters of the first tala inherent to an I-1-b

the dome is surrounded by tiny *karnakuṭīs*. At Kāvaṇṇandālam the apsidal śikhara without additional *kuṭīs* was selected. The two superstructures differ not only in their shape — the Pallava apsis and the Coḷa dome — but also in the *grīva* niches, for the old design, including a lintel, was applied at Kāñcī(S). At Kāvaṇṇandālam, on the other hand, the *kūdus* rest on the *uttira* which is decorated with a border of lotus petals and which, moreover, runs on under the *kūdus*. In this construction the lintel above the *podigais* carrying the *kūdus* is superfluous and was, consequently not incorporated into the total design of the *grīva* shrine.

vertical and horizontal layout.

In these two respects the three monuments also deviate clearly from the current Coḷa style, for they belong either to the impure I-2-b type (Kāvaṇṇandālam) or to the I-1-b category of *vimānas* (Kāñcī, Vempakkam). Their I-A-1 layout, used by the Coḷas, could well be a combination which developed independently and simultaneously in the Coḷamaṇḍalam and in the Toṇḍaimaṇḍalam (p. 230, cf. Brahma-*śāstra*, appendix 15, no. 11). All three temples stand on a simple IA2a base — a type which was known from the days of the Pallavas. In fact, the only four indisputably Coḷa features of these shrines are the *vari* interrupted by niches, the lotus *upāna*, the small sculptures on either side of an image at Kāñcī and Kāvaṇṇandālam, and the round śikhara at Kāñcī.

When we compare these three buildings with those at Kūḷambandal and Puḍūr, it is obvious that the last two cannot be closely associated with the (Early) Coḷa style either, though they do share the most important structural aspects with it.

Koyils at Kūḷambandal and Puḍūr (Pls. 20a-b, 101; appendix 15, nos. 23 and 29) The huge Gaṅgaikoṇḍaśeṣvara at Kūḷambandal is a free-standing and perfect example of the Middle Coḷa period, for the Early Coḷa -B- layout is extended with *antarāla* and a *mukhamandapa*. The much smaller *koyil* at Puḍūr shows the same divisions, though its *mukhamandapa* has completely collapsed.

The Gaṅgaikoṇḍaśeṣvara was commissioned — as its name indicates — during the reign of Rājendra I by a priest who is believed to have belonged to a famous Tañjāvūr caste, a fact which could explain its close structural affinity with the delta idiom.

In contrast to the former three shrines, the two monuments at Kūḷambandal and Puḍūr do not distinguish themselves by their decorative details, for in this respect both buildings were left practically unadorned. However, some structural features are sufficiently interesting to deserve our attention.

The superstructure.

In both instances the śikharas are bulbous and surrounded by karṇakuṭīs. The kūḍus above the grīvā niches stand on a kapota which, in our opinion, is a novelty, not only in this part of the country but also further south. Moreover at Kūḷambandal the kuṭīs, śālas and the connecting walls of the hāra, all play kapotas in line with each other, thus creating the impression of a seamless uninterrupted kapota not far above the main kapota of the first tala. This concept seems a new contribution to Coḷa architecture, for it was neither attested in earlier buildings, nor in the Rājarājeśvara at Tañjāvūr, nor in the huge monument at Gaṅgaikoṇḍaḷapuram (Pl. 20a).⁶³

This second kapota results from the fact that the kuṭīs and śālas as well as the wall connecting these aedicules are double storeyed, for the small śikharas of all these elements do not rest immediately on their walls, but are slightly elevated by means of a grīvā which in its turn stands on the remains of the second kapota. However, this type of hāra is not really a novelty, for many large Pallava monuments at Kāñcī, Māmallaḷapuram and Uttaramaḷlūr show the same peculiarity. This does not imply that the Pallavas knew only the hāra with a double kapota, for in each second and following hāra of their large buildings as well as in the first hāra of the Mukunda Nayanar at Māmallaḷapuram (Pl. 37) the kapota is absent as in the Coḷa vimānas.

The vertical and horizontal layout.

Apart from the canopy above the image of Dakṣiṇāmūrti, the two buildings present a well-balanced, vertical composition — an aspect which was, so far as is known, typical of the Early Coḷa style. At Puḍūr, the I-2-b vimāna gives, at first sight, the impression of being out of balance due to an extra pair of pilasters on either side of the protruding central bay. However, the tiny karṇakuṭīs on the grīvā platform eliminate this impression, since they appear to be the extensions of these two pairs of kāls on either side of the protruding central bay. At Kūḷambandal the 3-B-1 layout might be considered an anomalous and unusual design, but in view of the fact that the remains of the original mukhamanḍapa clearly reveal the former presence of four niches in its walls, we can safely assume that the image-bearing function of the ardhamanḍapa was transferred to the mukhamanḍapa, in contrast to, for instance the situation at Gaṅgaikoṇḍaḷapuram, where the walls of the mukhamanḍapa are plain and those of the ardhamanḍapa are lavishly decorated with images (Pl. 19b). The presence of niches in the ardhamanḍapa walls at Kūḷambandal may seem superfluous, but is explained by the fact that this had become the standard place of the image.

Gurgā and Gaṇeśa, a symbolic position which, apparently, could not be changed.

The podigais and the prastaras.

The podigais on both shrines differ in a daring way from the newly introduced T-shape at Tañjāvūr. They are almost independent elements carved into a kind of pinnacle, only vaguely reminiscent of the stark T. The prastaras are of the by now common, bell-shaped type. However, the kūdus are closed and placed half-way up the kapota above the border of circles (Pls. 20b and 19a). The makaras on the corners are once again "realistic", mythological animals, though all kinds of human beings, single and in pairs, performing all sorts of activities emerge from their mouths. Bhūtagaṇas and lotus petals are present under the vi-āna-cum-ardhamāṇḍapa and the mukhamāṇḍapa respectively. The shrine at Kūḷambandal demonstrates its regional character not only by its podigais and its superstructure, for the small sculptures on either side of the Dakṣiṇāmūrti niche are also incorporated into the walls in an unfamiliar way. Here, the figures of ṛṣis are not part of the blocks in which the base of a kāl was carved — as in Early Coḷa temples — but are depicted on loose blocks added to the finished walls later on. The holes on either side of the Dakṣiṇāmūrti niche were apparently meant for the tenons of these images no longer present (Pl. 20a).

In view of all this we venture to state that the monuments at Kūḷambandal and Pudūr represent a style different from that of the temples at Kāvaṇṇandāṭam, Vempakkam and Kāñcī(S), and that they must somehow be associated with the sthāpatis working in the Kāverī delta — a point of view which seems to be underlined by the presence of the IIB1 base at Kūḷambandal, which was, after all, the most characteristic of all Coḷa features. Since Rājendra I is known to have resided in Kāñcī⁶⁴ and died at Brahmadēśam — of which Pudūr was a part — it is quite likely that some sthāpatis from Tañjāvūr or Gaṅgaikoṇḍaḷapuram were active in these parts of the vast Coḷa empire.

The tritalas at Kuvam, Tiruvorriyūr, Tiruppachchiyūr and Tirumullaivāyil (appendix 15, nos. 22, 27, 30, 31).

We discussed the tritalas at Tiruvorriyūr, Tiruppachchiyūr and Tirumullaivāyil at great length when dealing with the upāna (pp. 236-243). One of the main problems faced by their sthāpatis was how to divide the elongated walls in a satisfactory way, a problem restricted to apsidal and rectangular vimānas. In the elephant's backs at Tiruvorriyūr and Tirumullaivāyil, the solution was found by adding a unique type of pañjara; at Kuvam and Tiruppachchiyūr, both rectangular vimānas, blind niches adorned with makaratorāṇas were designed (Fig. 48,

p. 237). At Kuvam two pilasters carrying a kapota were added on either side of the central niche. In its turn this kapota was decorated with kūḍus and gives the impression of being connected to an otherwise completely independent kūḍu on the main kapota by means of two slender ribbons cutting peculiarly across the uttira. This uttira displays rosettes at short, regular intervals and carries a lively row of bhūtagaṇas which is interrupted only by the ribbons cutting through the uttira. At that place a few lotus petals were carved instead. The makaratorāṇas above the niches show the well-known, curved profile of the Early Coḷa style (appendix 6), but within these carvings the concept of the makaratorāṇa is entirely lost. For, relatively large figures fill the space, as for instance above the Liṅgodbhava image where a reclining Viṣṇu is depicted in full length. The podigais do not show experiments, they are simply plain, T-shaped.

In spite of the fact that the earliest dated record at Kuvam mentions the year A.D. 1057, we attribute this monument to the early days of the 11th century, the period in which the other tritalas were erected. None of these buildings provides epigraphical evidence for their dates but their style points to a close relation between their sthāpatis and is indicated by the experiments in the apsidal and rectangular layout as well as the absence of experiments in the shape of their podigais (cf. Fig. 61, p. 308).

The Viṣṇu Koyils at Tiruvadandai and Tirumaliśai (appendix 15, nos. 26, 27). Anybody able to interpret appendix 15, can produce an exact copy of these Viṣṇu shrines. In our opinion this indicates that they were built in strict accordance with the rules of the śāstras without any additional embellishment. Since the Viṣṇu Perumal at Tirumaliśai carries inscriptions which date at the earliest from the 13th century but, nevertheless, displays the contours of the Coḷa makaratorāṇa, the T-shaped corbel and the perfect II-2-b/1-A-1 in combination with an attached mukhamāṇḍapa, we are inclined to consider the other Viṣṇu Perumal at Tiruvadandai also as a product of some undefined period in which temples were erected according to the śāstras. This period had not yet started when the tritalas and the monuments at Kāvaṇṇāḍālar pakkam, Kāñcī (S), Kūḷambandal and Puḍūr were built (cf. pp. 241-42).

In this connection a final remark should be made with regard to the Kachchimayana shrine in the compound of the Ekambaranātha at Kāñcī (appendix no. 25), which we mentioned when dealing with the upāna (p. 242). Due to the extra moulding this temple must have been built during the period in which the high upāna became popular in the delta, i.e. after A.D. 990-1000. This is

But its podigai must have been carved into a T, for this was the practice of the sculptors working in the Palar area during those days (cf. Fig. 57, p. 300). Fortunately, the corbels of this large subshrine do not belong to this new type. On the contrary, they display the angular and throated versions decorated with a median band. To complicate matters even more, the architects designed not only kapotas with straight profiles and kūdus cutting right across the border of circles, but also vimāna walls according to the ORM formula adding lotus buds to the square bases of the polygonal kāls on the corners. As such this 1-A-1 temple reminds us of another 1-A-1 building constructed at Goburapatti in the Eruvār area around A.D. 990-1000. This shrine also stands on a high upāna and shows variation in its kāl profiles (Pl. 49). The peculiar lotus buds decorating the delicately carved pilasters of the Tirucachchimayana remind us of the Śemayan Mahādevī koyil at Vriddhāchalam (Fig. 41b, p. 211). The padmabandha under the upāna is a repetition of a similar border under the jagatī. The Tirucachchimayana carries this new combination of plinth mouldings with the temple at Tirukkoñūr (appendix 13, no. 24) rebuilt around A.D. 1058 and with that at Tiruvadanai which we attributed to the end of the 11th century at the earliest (p. 242).

In view of the fact that the Tirucachchimayana is a subshrine in front of the main temple, it cannot have been constructed prior to the reign of Rājendra. Subshrines of this size previously unknown. Consequently, we have to conclude that the Tirucachchimayana is another example of the assumed practice to erect buildings in strict accordance with the descriptions in the śāstras. However, in this case qualified sculptors were commissioned to embellish it according to the taste of the Early Coḷas. We would not be surprised if this order was issued by Kulottuṅga I or II, for in those days the sculptors were once again highly trained as is obvious from the carvings on the large wall surfaces of the immense buildings at Dārāśūram and Tribhuvanam (cf. Pls. 12a-e).

We are well aware of the fact that we are not in a position to draw final conclusions with regard to the precise dates of the monuments just discussed. However, according to us, they may belong to roughly the first three decades of the 11th century, for at that time there were apparently two styles in the making in the Palar area. The first is represented by the monument at Kāvaṇṇandālam, displaying features which should probably be associated with the Bāṇa style, east of the Palar area. The second, represented by the shrine at Kūḷambandal, seems to be a continuation of the Early Coḷa style. Much later, temples were constructed in which the unique, regional style was eliminated in favour of a set of rules reflecting almost completely the basic Early Coḷa elements.

Consequently, the dates mentioned in Fig. 61 should be taken merely as provisional suggestions. When more monuments in this area as well as in the neighbouring districts to the north and west will become known, it may be possible to check the validity of our arguments as expressed in these

7.3 Comments upon the podigai as indicator of a style.

From our discussion in the previous paragraphs it may have become clear that the shape of the podigai cannot be used as criterion for the dating of temples. Everything depends on the location of the monument on which the podigai occurs. For, in the Palar region the T-shaped corbel is part of almost all koyils during the first half of the 11th century, whereas in the Kāverī area structures decorated with the throated podigai do not necessarily belong to the 9th or 10th century. Some of them are later in date.

Another problem is whether or not changes in the shape of a podigai are part of a general transition from one style to another. In this connection a distinction should be made once more between 11th century architecture in the Palar region and that of the Kāverī area. For, in the north some remarkable innovations are noticeable, whereas in the Kāverī area the alterations are less impressive — at least not in the ordinary ekatalas and dvitalas (cf. Fig. 55).

The next question is whether the Rājarājeśvara at Tañjāvūr where the T-shaped podigai was first tried out successfully, reveals basic changes in all parts of the building as well. From our study of the Sapta Sthānas it appears that the sthāpatis of this group of koyils carried out experiments not only with regard to the shape of the corbel but actually with regard to almost all aspects also. In view of the discrepancies in the demarcation of the Early period we must conclude that the T-shaped podigai is indeed a doubtful criterion and that it is also difficult to attribute other features to either the Early or the Middle Coḷa style. In this connection two further questions can be formulated:

- is the Rājarājeśvara with its T-shaped podigai a product of the school of the emperor Vikrama Chōla at Gaṅgaikōṇḍaḷapuram or
- are the two imperial buildings both representatives of a new phase in Coḷa architecture — a phase which, as we saw earlier on, contained a restricted number of rather small koyils, each characterized by a unique combination of the ground-plan of its vimāna and its ardhamandapa.

The first possibility was suggested by Barrett and Soundara Rajan (pp. 59 and 61, note 68). The alternative is represented by the views of Sastri and Balasubrahmanyam (p. 59). As we shall see further on the first suggestion cannot be substantiated, for comparison of the two monuments in question shows that — as in the case of the earlier workshops — the sthāpatis at Gaṅgaikoṇḍaḷapuram systematically tried to avoid duplication of the structural and ornamented details of the Rājarājeśvara at Tañjāvūr. Moreover, these vast masses of piled up granite blocks clearly demonstrate that in many respects the idiomatic rules as laid down by the architects of the previous two ateliers, were carefully applied. So, on stylistic grounds it is incorrect to separate these monuments from each other.

In our opinion we are dealing with a dual development. At the village level, inside and outside the Coḷamaṇḍalam shrines were built which differed from the Early Coḷa monuments in minor decorative innovations and re-arrangements of Early Coḷa structural designs (pp. 307-08). At Tañjāvūr and Gaṅgaikoṇḍaḷapuram structural experiments were continued during the first half of the 11th century as we shall illustrate.⁶⁵⁾

We start with the layout of the two vimānas which belong to the sāndhāra class. Their central bays project — at Tañjāvūr as part of a -4- ground-plan, while at Gaṅgaikoṇḍaḷapuram the -3- variant was selected (Fig. 62).

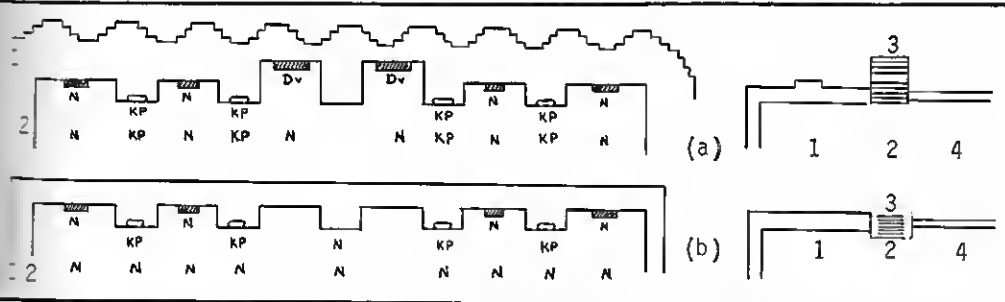


Fig. 62. Ground-plans of the upāna and vimāna at
a) Tañjāvūr
b) Gaṅgaikoṇḍaḷapuram
1. upāna 2. vimāna.
N=niche; KP=kumbhapañjara; Dv=dvārapāla.

Fig. 63. General layout of the buildings at a) Tañjāvūr and b) Gaṅgaikoṇḍaḷapuram. 1. vimāna; 2. antarāla; 3. staircase; 4. mukhamandapa.

According to us these differences in ground-plan in combination with the characteristically Early Coḷa, projecting, central bay, were created intentionally. For, the theoretical variants -3-c and -4-c (cf. Fig. 23, p. 87) were so far never applied in the Coḷamaṇḍalam. However, it is interesting to note that the proto-

type of the ground-plan of the Rājarājeśvara was used at Nārttāmalai, where Vijayālaya Coḷeśvara (V-5-c) is the elaborate variation of the -4-b layout. Furthermore, the sthāpatis adapted the complete 3-B-3 layout which was a continuation of Śembyan Mahādevī's workshop, for they designed an ardhamandapa with straight walls without projections and a series of niches in each wall. By this wide and elongated hall should rather be called a mukhamandapa, for the false antarāla has meanwhile turned into a real corridor. A staircase on one side of the antarāla leads up to the side-entrances of both buildings. From what we know about the tradition of the Early Coḷa sthāpatis, it is indeed not surprising that the application of this staircase — which is a new structural element in Coḷa architecture — is different in each building. At Tañjāvūr it extends well into the temple compound and, moreover, occupies the entire length of the antarāla wall, whereas at Gaṅgaikōṇḍaḷapuram it remains within the circumference of the shrine and is considerably narrower than the length of the corridor.

The concept of a real antarāla was applied as early as A.D. 875-890 at nivāsanallūr, where the Koranganātha was constructed as a sāndhāra vimāna. In this building the staircase is still absent, for at the time the high upāna was not yet part of the Early Coḷa idiom. As soon as the upāna became an elevated part consisting of several mouldings, a staircase was required.

The tendency to add more and more niches to a building — a tendency which is noticeable throughout the Early Coḷa period down to A.D. 985 — was obviously continued in the two huge, imperial vimānas. In this connection it should be pointed out that — in contrast to the Early Coḷa practice — the lateral niches occupy the lateral projecting bays on either side of the wide central śālā. The kumbhapañjaras are now placed in the recesses which in previous days were reserved for devakoṣṭhas.⁶⁶⁾

The first tala walls are divided into two sections by means of an — in place unexpected — intermediate kapota. Vertically the walls of both buildings are different. At Tañjāvūr the central bays contain huge doors — properly framed by two gigantic dvārapālas (Fig. 62a). Furthermore, there is a kumbhapañjar in each of the eight recesses per wall. The space above the dvārapālas contains niches. So, in total there are ten devakoṣṭhas in each vimāna wall. At Gaṅgaikōṇḍaḷapuram, on the other hand, each dvārapāla is replaced by four rows of tiny attendant figures. This arrangement implies that right from the start the central bays were not meant to be used as entrances, as at Tañjāvūr. The kumbhapañjaras in the lower part of the walls are replaced by niches in the upper part. There are also devakoṣṭhas above the "door-niche" which has no supporting framework, since the half-size niche pilasters, the lintel as well as the

raṇa are absent. So, in total there are four kumbhapañjaras in each vimāna wall as well as thirteen niches (four under and nine above). Previously we noticed that Early Coḷa sthāpatis considered (kumbha)pañjaras and niches mutually interchangeable (p.177). Now we see this principle put into practice on the walls of one of the same building.

The next example of the supposedly intentional variation of the walls cannot be traced directly to the Early Coḷa idiom for the simple reason that Early Coḷa monuments are not as tall as the two vimānas in question and therefore their walls did not have to be divided into two parts. At Tañjāvūr, the two kapotas incorporated in each bay carry two large kūḍus, whereas at Gaṅgaikoṇḍacoḷapuram only one kūḍu is displayed above the lateral bays of the lower kapota. The two kūḍus of the central bay are almost touching each other. The upper kapota on the other hand, shows two kūḍus above the lateral bays and four above the central projection.

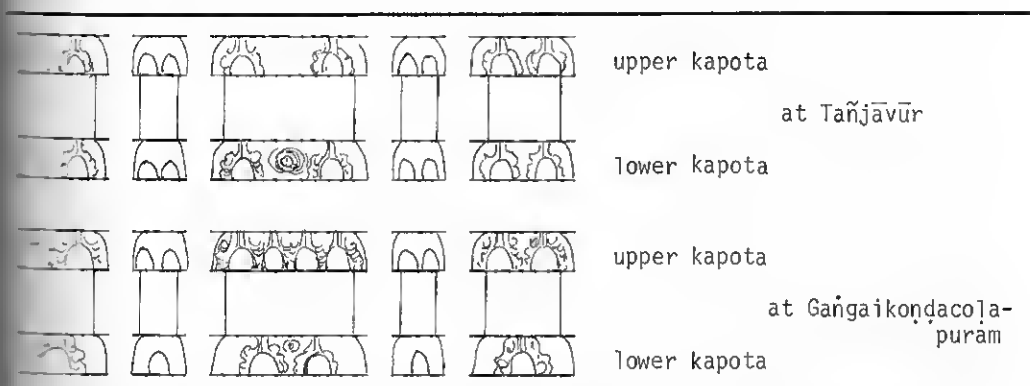


Fig. 64 Composition of the various first tala kapotas of the vimānas at a) Tañjāvūr and b) Gaṅgaikoṇḍacoḷapuram.

Turning our attention to the adhiṣṭhāna some further remarks can be made. Typically, the Rājarājeśvara is decorated with a IB1 sockle, of which the decorated kumuda is piped with a row of lotus petals (Fig. 65a) like that at Śrī-Īsanallūr. However, the usually quietly seated vyālis above this moulding appear to be rearing animals spurred on by their riders and ready to jump. At Gaṅgaikoṇḍacoḷapuram the vyālis are again shown in their normal, crouched position. On the other hand, the entire building is supported by a series of powerful lions depicted in the panels of the upāna. The jagatī is ogeed as that of Tiruvaiyāṇū but no lotus-petals are carved on the curves (Fig. 65b). The platform under the Rājarājeśvara shows a circumference daringly different from that of the main building (Fig. 62a) and reminds us of the concepts which were

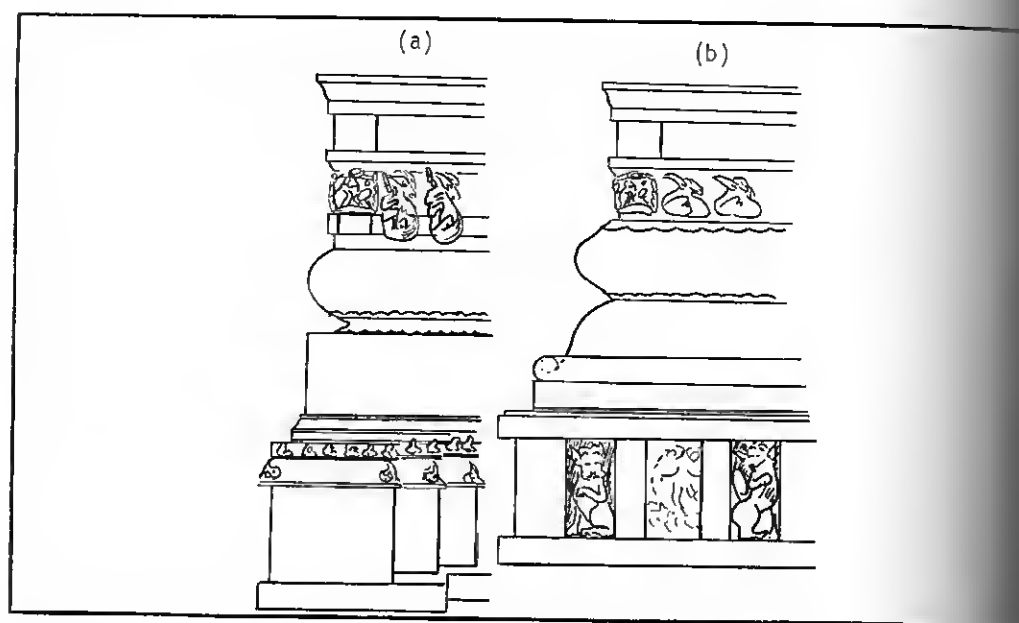


Fig. 65 Types of upāna and adhiṣṭhāna at a) Tañjāvūr and b) Gaṅgaikoṇḍacoḷa

applied in some ancient Cālukya monuments at Paṭṭadakkaḷ and Nandi (appendix Figs. a-2 and a-3). In addition, it has two extra mouldings which should, in fact, have been part of the adhiṣṭhāna, viz. the kapota and above it a row of seated vyālis. We get the impression that the sthāpatis wanted to incorporate all types of known mouldings into one coherent design. Since the presence of the rearing vyālis prevented the application of a kapota, they placed it under the jagatī. The upāna itself is plain. The square layout of the form at Gaṅgaikoṇḍacoḷapuram shows an individuality of its own due to the presence of panels in which vyālis and purely ornamental motifs alternate. In this connection it should be pointed out that both innovations were combined in a third tall Coḷa building, viz. the Airāvateśvara at Dārāśuram (Pls. a-e) which was constructed during the reign of Kulottuṅga I (A.D. 1070-1101).

As we saw in the paragraph dealing with the kāl, the introduction of base mouldings coincided with new combinations of kāl profiles and additional kāl features such as nāṭṭya-peṇs (pp. 250 and 254). This tradition was carried on well into the 11th century, for each of the imperial koyils has its own specific combination of kāl profiles (SO/SO and SOM/SO, p. 262). Moreover, Rājendra's shrine (SOM/SO) displays rearing vyālis on top of the palagaṇa, thus reminding us of the monument at Kumbakonam. The exuberance of tiny ornaments covering the entire surface of the walls which is so characteristic

The Gaṅgaikoṇḍacoḷeśvara, seems to be a superlative imitation of the first example of this decoration at Śrīnivāsanallūr (pp. 273-74). The application and position of the kāl variants on the two great shrines differ also. At Tanjāvūr the square kāl invariably adorns all projecting bays while the octagonal pilasters flank the niches. At Gaṅgaikoṇḍaḷapuram the two outer bays as well as their devakoṣṭhas are decorated with square kāls, the intermediate bays and their niches with octagonal pilasters, while the central bays display the beautiful, polygonal shafts.

Turning our attention to the spires, we can establish a few striking features. In the first place, the profile of the pyramid at Tanjāvūr is steep as a result of a particular relation between height and width = 2:1 (p. 191, note 13). As the superstructure at Gaṅgaikoṇḍaḷapuram is six metres lower it would have had a more pyramidal character than its counter-part at Tanjāvūr. However, it shows a remarkably concave curvature, while the upper talas of the spire seem to "undulate". These differences in the appearance of both spires can only be understood when we assume that the sthāpatīs tried to apply as strictly as possible the square and the circle as the fundamental concept underlying the superstructures of the Rājarājeśvara and the Gaṅgaikoṇḍacoḷeśvara respectively. The latter monument demonstrates how clever the architects turned the square ground-plan of the vimāna into the circle of the grīvā platform (Fig. 66, b-1). In order to achieve this, the uppermost talas display the unusual -5- layout — known from the shrines at Tiruppalānam and Tiruvārūr — to which aedicules crowned with tiny octagonal śikharas were added in between the talā and the karṇakutīs (Fig. 66, b-2). To complete this ingenious composition based on the circle, the peculiar round shrines which struck us at for instance Tiruppalānam (cf. Fig. 56, p. 289), re-appear in this building on the walls of

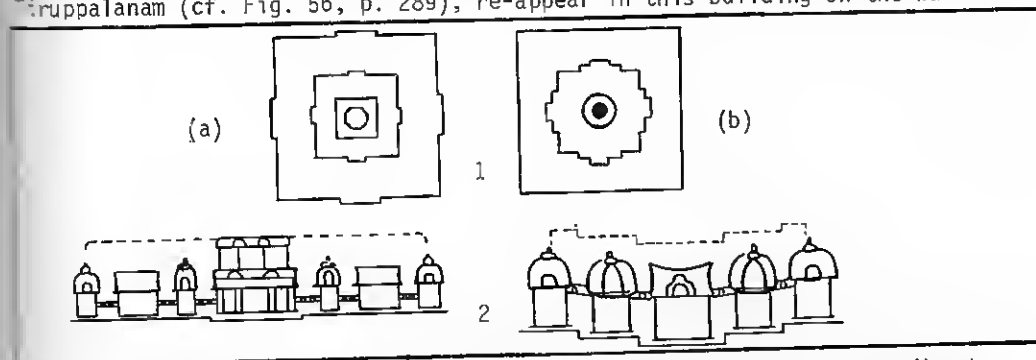


Fig. 66 Important features of the spires at a) Tanjāvūr and b) Gaṅgaikoṇḍaḷapuram. 1. The ground-plan of the talas and the grīvā-platform. 2. The composition of the hāra in the upper parts of the spire.

the large śālā of the first hāra (cf. Fig. 56b, p. 289). The highly unorthodox round grīvā platform with its elegant circular kapota is in our opinion a copy of that at Nārttāmalai, where the sthāpatis were confronted with a similar problem, viz. how to transform a square into a circle (Pl. 87).

All the above mentioned arguments seem to prove beyond doubt that the imperial koyils at Tañjāvūr and Gaṅgaikoṇḍaḥapuram are the products of a development which started at Nārttāmalai ca A.D. 860 and was carried on throughout the 10th century. For, the appearance of the two buildings in question reveals that their sthāpatis continued to experiment with fundamental forms and shapes created by their fore-runners. Since this also applies to the smaller koyils spread throughout the delta, we propose to include both buildings in the same phase. As we concluded earlier on that the combinations of old, structural forms is characteristic of the Middle Coḷa style (appendix 11, pp. 386-87), we are, consequently, forced to place the caesura between the Early and the Middle Coḷa phase at A.D. 985, the year in which the first plans of the Rājarājeśvara were drawn. Although the sudden change in the shape of the podigai might seem to be a rather minor adaptation, it happened to coincide with the beginning of a further step in the development of Coḷa architecture.



NOTES TO CHAPTER FOUR

- 1) Soundara Rajan (1978, pp. 116-17) rejected Barrett's typology but he borrowed his fine drawings (in Fig. 7) and omitted to mention two more main types occurring in the Coḷamandalam proper (cf. our appendix 12).
- 2) The Kedareśvara, a small shrine in the outskirts of Uttaramallūr, stands on a high upāna covered with inscriptions. At the time of our visit these had not yet been studied and the temple is, consequently, not mentioned in the translated inscriptions. The excentric location far to the north in the Pallava territory of the typically Early Coḷa lotus moulding on the monument is difficult to explain, the more so as the building is a modern reconstruction from the *vyali frieze* upwards. It can, therefore, not be established whether we are dealing with the remains of a Pallava shrine as suggested by the presence of the beautifully decorated upāna or with an ancient reconstruction from the *upāna* upwards by the Early Coḷas.

De Lippe, p. 218. Contrary to what is generally assumed, we have grounds to believe that the Coleśvara was built some years after the completion of the Agastyeśvara from which its sthāpati copied the IIB1 base (see also our discussion on p. 290).

After we had collected the material for this study Balasubrahmanyam's volume III appeared. It contains a dim illustration (pl. 398) of the shrine at Tennēri in which we can see that the central part protrudes and has a rounded kumuda. This adhiṣṭhāna probably represents type IB2a although IIB2a is not impossible either.

The adhiṣṭhāna of the ruined Śiva koyil at Tiruvalaṅguḷi was partly excavated at our request at one of the corners of the vimāna where it is attached to the ardhamandapa. We found that both temple parts were standing on a IIB2a base.

Dhaky 1971, p. 267 and note 14; Sastri 1966, p. 175. In order to illustrate that the inscriptions are vague and can be interpreted in different ways we mention the fact that Sastri in his first publication (1955) dated the battle at Sripurambyam (Tiruppurambyam) in which the fate of the Coḷas was decided positively, in A.D. 879, whereas in his second book he attributed this event to ca. A.D. 885. In both cases arguments are missing. Cf. Dhaky 1971, pp. 266-67 and notes 12-14 where the various conflicting opinions of Āditya's rise and political career are reviewed. So far, this discussion has not yet been settled among epigraphists and art-historians alike.

Relations between Āditya I and the Irukkuveḷ chieftains must have been friendly since a record at Tiruchchendurai (p. 110) tells us that a daughter of one of these chiefs was married to a son of Parāntaka I between A.D. 893-910.

For references see our appendix 14.

The position of the protruding kaṇṭha blocks under the vari exactly under the pilasters of the pañjaras (Pl. 51) could be interpreted as an indication that the pañjaras were planned right from the start. Although pañjaras were a common feature on the old Cāḷukya monuments at Bādāmī and Paṭṭadakal, kaṇṭha blocks at regular intervals were always present regardless the position or the presence of pilasters above the vari. So, the presence of the kaṇṭha blocks on the walls of the Tirutiṇḍīśvara does not imply that the pañjaras were preconceived. They were probably intended to be decorated as shown in Pl. 69a.

We shall return to the shrine at Kīlūr in the paragraph dealing with the kāl (pp. 265-67).

Chandra 1975, pl. 125.

We were unable to visit the koyils at Tennēri and Tiruppachchiyūr. So we had to rely on the illustrations provided by Balasubrahmanyam (Balasubrahmanyam 1975, pls. 283-89; and 398-400; idem 1971, pls. 291-94).

- 13) An inscription of A.D. 983 informs us that Śembyan Mahādevī made a gift to the Śrīvimāna at Tirumullaivāyil. According to the epigraphist who published the record the palaeography is much later. Balasubrahmanyam did not know how to solve this problem. He therefore suggested with further comments that the shrine was completed in the early part of the reign of Rājarāja I. However, the specific remark by the epigraphist cannot be ignored, for it implies that the record was re-engraved considerably later than the period of Rājarāja I. On the other hand, the date of the temple is not "late" as we shall see further on. We would like to suggest the following solution. Gifts, especially large sums of money, were recorded on palm-leaves, copperplates and on temple walls. It is impossible that in later times somebody paging through the palm-leaf manuscripts stored in the offices of the elephant's back at Tirumullaivāyil discovered the record of Śembyan Mahādevī, in which she is said to have provided large sums of money by selling land. Taking it for a founder's record he may have had it inscribed on the walls of the shrine.
- 14) In general, mukhamāṇḍapas are rather wide halls prone to collapse as the full weight of the granite slabs of the roof rests on the walls and pillars inside. Since the ardhamāṇḍapa of the Vaceśvara at Tiruppaṇḍi is also rather wide, this hall may have caved in instead of the mukhamāṇḍapa. Consequently, the records mentioning the regnal years of Rājarāja I could originally have been written on the walls of this part of the temple no longer in existence.
- 15) Balasubrahmanyam 1975, p. 14.
- 16) The illustrations of Balasubrahmanyam (1975, pls. 398-400) do not allow a conclusion as to whether or not the shrine at Tēnnāri has a plinth.
- 17) In one more respect this attribution is acceptable. For, it is unlikely that priests of a dilapidated, brick perumal could raise sufficient money to erect a stone koyil in a period when the Vaiṣṇava persuasion was not supported by the royal family. With Rājarāja I a more liberal attitude towards Vaiṣṇavism seems to have prevailed. So, the elaborate reconstruction of the Perumal in question could have taken place during the reign of Rājarāja I.
- 18) Examples of renovated temples which are true copies of older ones are provided by the refinement of their decoration, are located for instance at Tiruvīśālūr and at Kīlūr (Barrett 1974, p. 88).
- 19) The same concept is displayed on the Vaisnava cave at Nārttāmalaḥ (Lippe, pl. 203).
- 20) Srinivasan 1961, pp. 350-52.
- 21) Soundara Rajan 1975, p. 300.
- 22) This almost completely destroyed shrine was to a certain degree successfully reconstructed by Pattabīramin from fragments lying around the ruins.
- 23) Balasubrahmanyam 1975, pp. 132-33, pls. 100-05.
- 24) The blocks above the niches, are, however, rather free interpretations of the kapotas which cannot have been part of the original design.
- 25) The village was then called Valaiyar, the temple Tantonrīśvaram.
- 26) The only inscriptions referring to this temple were found at Brahmādevī and Ennayiram — two towns which together with Dadapuram and Eśālem form a small regional unit.
- 27) Balasubrahmanyam 1975, p. 147 under the caption Brahmaapurisvarur.

- 3) Acharya, pp. 243- 49; Radhakrishna, pp. 203- 24; Gangoly, pp. 28-29, 61-64.
- 4) Dhaky 1977, pp. 8-11, 14-18, 21-22, 40.
- 5) However, the Mallikārjuna situated in the same compound as the Virūpākṣa at Paṭṭadkal has a round śikhara, whereas its neighbour displays the more common square roof. This early occurrence of the round shape seems to indicate that even in those remote days the dome was accepted as an alternative of the square śikhara.
- 6) The śikhara of the Pañcanādiśvara is round; as the grīvā-platform is octagonal, the original roof could also have been an octagon, but it is more likely that its roof is a copy of that at Melatiruppūndurutti, where the layout of the vimāna is square, while the grīvā-platform is octagonal and the śikhara is round.
- 7) Although the distribution-pattern is not realistic because not all octagons and squares can be mapped due to later renovations, we may assume that the renovators had to restore an equal number of octagonal and square śikharas. Therefore, the present distribution-pattern can be considered to represent the original spread in the same proportions.
- 8) The distribution-pattern on map 12 clearly demonstrates a preference for the square śikhara. Comparing it with the map provided by Soundara Rajan (p. 248, Fig. n) some "Muttaraiyar" shrines indicated with a circle in his map have a square roof instead of a dome (which he supposed to be characteristic of the Muttaraiyars), viz. the temples at Tillaiśthānam, Tiruchchātturai and Nemam. The śikhara over the shrine at Tiruchchennampūndi has disappeared. The roofs at Śendalai and Tiruvaiyāṇū were renovated beyond recognition. The square grīvā platform at Kiranūr indicates that the original roof must have been a square. The shrine at Kannanūr is located beyond the southern Vellar, the ancient boundary between the Pāṇḍya and Pallava spheres of influence. It is not likely that the Muttaraiyars were living on both sides of this important boundary. So, the only shrine representing the assumed "Muttaraiyar" preference for a round śikhara is that at Nangavaram. The fact that there is only one building with a round roof in this area refutes Soundara Rajan's theory.
- 9) Chandra 1975, pls. 107- 09, 112- 13, 115- 16, 127, 135- 37 and 147. The bell-shaped profile of the roof on the Iravātaneśvara, a Pallava monument at Kāñcī (pl. 118) seems to point to a restoration carried out in the Coḷa period.
- 10) Balasubrahmanyam 1966, p. 105. Since Dantivarman is the name of one of the later Pallava rulers the fact that the village is mentioned under this name during the reigns of the first two Coḷa kings indicates that the Pallavas must have held sway over this area previously.
- 11) Ibidem, pp. 45-46. The dvārapālas — always included in a Śaiva shrine — were inserted later on, for there is no proper space for them (de Lippe, pl. 205). Their pedestals could have been part of pilasters cut away.
- 12) For a proper understanding of our arguments see also Chandra 1975, pls. 129, 132, 142 and 145 (the subtitles under pls. 131 and 132 should be read in reverse order).
- 13) Soundara Rajan 1975, pp. 286- 87.
- 14) Balasubrahmanyam 1966, p. 87.
- 15) For a proper understanding of our argument, see Chandra 1975, pls. 138- 40, 142- 43, 150- 51.
- 16) These aspects are not included in our code-list (appendix 5). Originally it was

not our intention to study the superstructure thoroughly, because our method cannot be applied to a distribution-pattern in which many items are missing due to renovation and plastering. Fortunately, the superstructure of a relatively large number of shrines has survived in the Tiruchchirappalli District. In addition, the differentiation of ornamental details of these roofs appears sufficiently interesting to be included in our discussion.

- 42) This "round shrine" looks rather like a pillar, but it has a kapota decorated with small kūḍus and has, therefore, to be interpreted as a kuṭi. Over it is placed a tiny kapota the śikhara of which is framed by the kuṭi on the main kapota (Pl. 23). The whole concept reminds us strongly of the tall cylinder rising up over the second kapota of the Vijayālaya Colesvara at Nārttāmalaī. The most unusual, round shape of the kapota on this building is particularly striking (Pl. 87). Similar pillar-like kuṭis are found on the grīvās at Tirumayānam, Puñjai and Uḍaiyārgudi (Pls. 43a, 60a and 60b) and far away at Kambadahalli in Mysore (State). However, on the older building this pillar or cylinder was part of a square grīvā, whereas in the first three villages it decorates a round grīvā.
- 43) The makaratorāṇas of the Agastyeśvara extend over the uttira, whereas those of the Colesvara remain under it. The latter is the normal way of design. In a makaratorāṇa, the former was never repeated again. We, therefore, believe that the Agastyeśvara should be clustered with the other koyils demonstrating experiments with the makaratorāṇa, i.e. the monuments belonging to the first and second phase (Fig. 42, p. 215). Its exquisite carvings, compared with those on the Koranganātha at Śrīnivāsanallūr, permit such a date (Pls. 31d, 33c, and appendix 6).
- 44) There is no inscriptional evidence contradicting this statement.
- 45) This is the year which Dhaky seems to accept without further arguments (1977, p. 18). He also seems to assume that the style of the buildings represents the Irukkuveḷ idiom without giving its characteristics.
- 46) Chandra 1975, pl. 127.
- 47) idem, pl. 129.
- 48) idem, pl. 130.
- 49) idem, pl. 132 (see note 37).
- 50) Soundara Rajan, 1975, p. 244.
- 51) Barrett 1974, p. 86.
- 52) Balasubrahmanyam 1971, p. 123.
- 53) idem, p. 109.
- 54) Balasubrahmanyam used a wrong argument when he stated that Parāntaka I was known to have defeated the Pallavas and gained possession of their country. First of all, the record of the Pāṇḍya king dates from the days of Rājendra and does not mention the place and time of the particular defeat. Secondly, we may take it for granted that the successful Parāntaka I defeated the Pallavas on their own soil, that is in the north and not along the banks of the Kāverī, as is stated in the record of Budi Vikramakesari (Balasubrahmanyam 1971, p. 123).
- 55) Sastri 1955, p. 113.
- 56) Balasubrahmanyam 1966, p. 81; see also our p. 33, note 8.

57) Having established *one* workshop responsible for temples built in a relatively vast area which was the domain of *four* groups of people, viz. the Muttaraiyars (Sendalai), the Irukkuvels (Koḍumbālūr), the Palluvettaraiyars (Kilāyūr) and the Coḷas (Tañjavūr), we may as well assume that several sculptors were part of the same atelier. These artists - and their trainees - probably produced stone sculptures which display an ever greater variety than the buildings in which they are placed, due to the greater artistic freedom of sculptures in comparison with that of architects. An investigation of their images based on our attributions regarding the age of Early Coḷa buildings might contribute to the general discussion of Early Coḷa art resulting in

1. a proper classification of stylistic, sculptural features in a chronological sequence and
2. a denial of the importance of the four "nationalities" of the sculptors and, consequently, of their icons, since we assume that the same persons - all belonging to one workshop - were commissioned to carve images for temples situated throughout the entire region in question (cf. Dhaky, 1971, pp. 280-81).

A proper classification as well as convincing arguments with regard to a strong regional bias in "Coḷa" sculptural art are missing in the few publications dealing with this subject. To quote two prominent authors, the Coḷa-Nādu style is the result of "The counterplay of the two contradictory tendencies - to realize and to idealize, to elaborate as well as to schematize, to stabilize but also to vaporize" (Dhaky, 1971, p. 263). "Again, like the Muttaraiyars, the Irukkuvels and the Palluvettaraiyars do have an idiom of their own which is reinforced by certain iconographic peculiarities. However, their family and political affinities with the Cholas are reflected in a stylistic relationship which is very close" (de Lippe 1978, p. 168). Unfortunately, it is nowhere explicitly mentioned what should be considered a "peculiarity" and a closely "stylistic relationship", although now and again references are made to features which show affinity with the Pallava and or Cāḷukya style such as the Cāḷukya bell-chain around the neck of nandis, the female figures decorating hāras, the motif of a warrior on either side of Durgā about to immolate himself and miniature shrines incorporated in hāras (de Lippe, 1978, pp. 163, 166 and 173 respectively). In order to discover the criteria which are hidden behind the panegyric adjectives describing regional biases in Coḷa art we compiled the table on p. 328.

In addition to this we may add the qualifications of Dhaky with regard to the style of Parāntaka I, which according to him is characterized by "an accent of trans-substantiation, material solidity, spiritual essence at one place and by the fact that it is beyond gravity, beyond reaches of representation, human on a higher plane of existence and other qualities due to an emerging bronze tradition" (Dhaky, pp. 281-83).

Apart from the fact that this terminology is rather vague, incomplete and applied inconsistently, it is, moreover, based on several distinctions which are not clear. For instance, sculptures from Sendalai and Tiruvēdikkudi are characterized by Dhaky (pp. 267-68) as Early Coḷa but pre-Āditya I in spite of the fact that he himself created a separate category of pre-Āditya I images, i.e. the Vijayālaya style (p. 268). Another remarkable - and unexplained - phenomenon is the duration of the second half of the Early Coḷa phase assumed by de Lippe (pp. 172-74). According to him it lasted for forty years from A.D. 886-927 and includes sculptures from Kumbakonam, Puḷḷamaṅgai and Śrīnivāsanallūr. Dhaky, on the other hand, made a distinction between an Āditya I phase and a Parāntaka I style (pp. 281-83) represented by Kumbakonam as well as Puḷḷamaṅgai and Śrīnivāsanallūr respectively, without further comment.

	Muttaraiyar de Lippe (p.172) Dhaky (p.272)	Irukkuvel Dhaky (p.279)	Vijayalaya Dhaky (p.268)	Aditya I Dhaky (pp.275-77)	Early Cola de Lippe (pp.172-76) Dhaky (p.272)	Parantaka I de Lippe (pp.174-75)
Body	slender body	slim physique	?	almost complete roundness	greater fullness of body, slim waist, heavy breasts	body somewhat formal
Arms	slightly tilted raised hand	very rectilinear pipe-like arm	?	surely raised arms	long arms	?
Head	barely perceptible movement of head	head either static or thrown in tilt "that only Muttaraiyar fellow can throw"	?	?	head tilted in charming way	incomparably beautiful tilt of head
Jewels	cabochon jewels studded with square emeralds and round rubies in matrix of thin ribbon	?	meagreness of ornaments	?	?	?
Smile	faint dreamy, unsteady smile	?	sharply cut eyelashes hollow stare	squarish round face	unsmiling face; calm, gentle expression; elongated face	full of inner calm, unsmiling but irresistible
Pose	?	?	?	extremely graceful body-bend; feeling for texture	Graceful stance; graceful triple-bend pose (Durga)	triple-bend stance
Other remarks	?	?	?	?	sublimated realism, perfect realization of the transcendent; breathtaking, arrogant charm	less realistic

In our opinion, research on Coḷa art has suffered from two defects. Firstly Coḷa temples were, so far, not dated in a satisfactory way. Nevertheless, their dates strongly influenced the discussion on the style of sculptures. In the second place, bitterly and/or lengthy disputes regarding the regional origin of style absorbed most of the attention. In case one can accept our attributions and our suggestion of the existence of a workshop - in which several artists from one or more communities - were working together, a more satisfactory picture of a developing style would eventually emerge from the otherwise abstract contemplations leading to statements such as "the fundamental contrast between the Muttaraiyar and Coḷa sculptures is in feeling" (Dhaky, p. 272).

35) Balasubrahmanyam 1966, pl. 105; Krishna Rao, p. 232.

39) Cf. appendix 3, Fig. b; Balasubrahmanyam 1966, pls. 107- 09; the monuments in the tracts of the Western Gaṅgas and the Eastern Cālukyas are, unfortunately, not firmly dated but are supposed to have been built in the 9th 10th centuries and the second half of the 9th century, respectively. Krishna Rao, p. 235; Prasad, p. 90.

42) Balasubrahmanyam 1975, pp. 269- 72, pp. 267- 69, p. 276.

The koyil located at Mahārājapuram and the Wanyaganātha at Tiruvārūr, as well as the Amman shrine in the compound at Gaṅgaikondacolapuram (appendix 11, no. 33) do not have records dated earlier than the period of Kulottuṅga I, i.e. A.D. 1070. The shrine at Mahārājapuram was discovered accidentally by us - like that at Manampādi - in the course of our frequent travels throughout the delta. It is constructed of very coarse, granite blocks, is heavily eroded and partly rebuilt in such a bad way that some pilasters were replaced upside down in the walls. On the basis of a few images lying in the grassy patches around this shrine, it can be stylistically linked to the temples at Manampādi and Ramanātha Kōyil.

43) Balasubrahmanyam 1975, pp. 276- 77. Here Balasubrahmanyam relates in a lively way the building history of the shrine in question on the basis of a detailed inscription which is also interesting in another respect, for it states that "...these gifts [between the 18th and 20th regnal year of Rājendra I] were not taken into the temple books and the temple treasury till the twentieth year of Rājendra I" (A.D. 1032). This lapse of time between the endowment of these extremely precious donations (for gold-plating and gilding parts of the vimāna, the entrance and the four sides of the shrine) and their being recorded confirms practices suggested by us earlier on (pp. 161- 62).

Balasubrahmanyam 1975, pl. 204. In the Late Coḷa spires at Dārāsūram and Tribhuvanam (Tj) this additional, second kapota was incorporated in every course. This implies that once again South-Indian architecture was influenced by innovations from the Palar area and not by those invented in the Coḷamandalam.

Idem, p. 235.

For a proper understanding of our argument see Balasubrahmanyam 1975, pls. 4, 7-9, 13-15, 19, 204-05; de Lippe, colour plate L, p.400; Volwahren, pp. 78 and 87.

Cf. Balasubrahmanyam 1975, pp. 18-19 and 248. The iconographical layout of the Rājarājeśvara is dominated by Śaiva sculptures. In our opinion

it is significant that along the walls of its ardhamandapa the first(?) Vaiṣṇava icons re-appear in the Colamandalam, viz. Viṣṇu and his consorts between Gaṇeśa and Gaṇalakṣmī (south wall) or between Sarasvatī and Mahisāsura-dinī (north wall). A representation of Brahmā is altogether absent. At Gaṅgaḍacolapuram, on the other hand, Vaiṣṇava figures are better represented. Viṣṇu as well as Brahmā are depicted thrice. Another remarkable difference between the two imperial koyils is the introduction of the dikpālas and Rudras in the walls of Rājendra's shrine. In other parts of South India guardian deities were occasionally placed in the exterior walls of a viṣṇu. The Eastern Cālukya monument at Biccavolu for instance displays these kinds of figures as early as the (middle of the 10th century (cf. Pl. 16). One of the Eastern Cālukya monuments at Biccavolu, for instance, displays these figures as early as the middle of the 10th century (cf. Pl. 16).



Conclusions

In this study we have tried to establish the architectural contents of the term Early Coḷa by means of a specific geographical approach, for inscriptional evidence with regard to this subject is often vague or even altogether absent and the interpretation of the stylistic terms are at best divided and often even conflicting.

We have restricted ourselves to the study of some basic features, for many, especially decorative, details have disappeared in the course of a millenium. On the other hand, the layout of a building and the vertical composition of its first tala are less easy to be affected by the wear and tear of time. Apart from these structural elements, some purely ornamental parts such as the base, the pilaster, the corbel and -- in some areas -- the exterior appearance of the superstructure, normally retain their original character. While studying the variation of these elements and their distribution throughout Tamil Nāḍu, not only the picture of the Early Coḷa style of architecture became progressively clearer(1), but we learned much about its various phases of development(2) and the regions in which it can be recognized(3).

1. The Early Coḷa style of architecture

First of all we established the individual, "variable" and "non-variable" features of each monument. These features indicated the existence of an older and a younger group of koṽils. Furthermore, we discovered some striking subgroup-characteristics within the older set of shrines, revealing the existence of two ateliers.

The "non-variable" features appeared to be:

1. a projecting bay (in the centre of the walls of the vimāna) containing a -
(cf. Figs. 24a-b, p. 89; map 5; Figs. 30a-b, pp. 103, 111; map 6; appendix
12 and 14 vs. 13 and 15);
2. a new type of niche including half-size niche pilasters, a lintel and a
ratorāṇa with a particular contour and ornamentation; its floor coincides
with the top of the paṭṭikā (Fig. 29d, p.98; map 6; appendix 6, Figs. 12-15
vs. appendix 3, Fig. a);
3. a vari interrupted by niches in the walls of the first tala (map 10; appendixes
12 and 14 vs. 3 Figs. 1-3, and appendixes 13-15) as well as by
niches of the hāra (Fig. 56, pp.288-89);
4. a wide variety of kāils on one and the same building (Figs. 49-54, pp.247-
252, 254, 260 and 262; map 11; vs. appendix 3, Fig.b; appendix 12 vs. 13-15);
5. a podigai of the throated or angular type normally decorated with a meander
band and a small vertical fascia (Fig. 57, p. 300; appendixes 12-15 vs. 13-15
Fig. b);
6. no decoration of the walls except for a few small, seated figures on the
side of a devakoṣṭha (map 13);
7. a prastara consisting of three mouldings, viz. a frieze of either seated
running animals such as vyālis, lions or elephants; a kapota with a specific
profile and decorated with kūḍus, crowned by a siṃhamukha, or rosette with
either loose blocks or part of the kapota slabs, while the kūḍu frames
consist of various types of fluttering, leaf-like ornaments (appendix 6, Figs. 12-15
c-g vs. Fig. b); a frieze of bhūtagaṇas between uttira and kapota; and
8. a śikhara with a bell-shaped profile (cf. appendix 3, Fig. b).

Numbering on, the "variable" features are:

9. a specific relation between the layout, the height and the number of pillars
of the first tala (Figs. 22 a-c, p. 86, Fig. 23, p. 87, Figs. 24 a-b,
p. 89; map 5);
10. a specific relation between the width of the ardhamandapa and the way it
connected to the vimāna (Figs. 33 b and d, p. 151; map 6); and
11. a specific relation between the width of the ardhamandapa and its number of
niches (Fig. 35, p. 160, Figs. 39-40, pp. 208-09; appendixes 12-15);

The specific nature of these relations depends on:

- a. the geographical position of the koyil in question with regard to the
Tañjāvūr (applicable only to shrines in the Kāverī area) or to some
Pallava centres (as in South Arcot) or with regard to the entire Kāverī
area (maps 5-6);
- b. the founders of the koyil (pp. 149-50).

The "non-variable" features 1 to 7 are the result of experiments carried out systematically in a small tract around Tañjāvūr, called by us the Sapta Sthāna area. They received their "non-variable" character only ca. A.D. 900 (Fig. 39, p. 208, Fig. 42, p. 215, Fig. 50, p. 250, Fig. 56, pp. 288-89 and 299-301). Strictly speaking, the monuments located in the Irukkuvel tract cannot be classified as Early Coḷa for three reasons. Firstly, they do not have a vari; secondly, they show no variation in their kāls and thirdly, with one exception at Nivāsanaḷlūr, they do not have lateral sculptures. However, the absence of these features was also noticed on one or more of the early experimental Coḷa temples. We, therefore, concluded that the Irukkuvel monuments have to be considered as the earliest export products of the sthāpatis working in the area near Tañjāvūr (pp. 214-19, 251-52, 297-98).

The variable features 9 to 11 show a steady relation till A.D. 985. From then onwards all combinations between height, layout, number of pilasters, width of the ardhamandapa and number of niches is allowed without a clear reference for one specific new combination or a location in a particular area (appendices 7, 10-11, 14 as compared with 13 and 15).

Apart from these individual features the Early Coḷa temples display the following distinctive characteristics, viz.:

- pañjaras and lateral niches in the vimāna as well as in the ardhamandapa are mutually exchangeable and do not show a relation with either the layout or the sum total of the niches (Fig. 32, p. 115, pp. 149-50; map 6A; appendix 8);
- an indifference with regard to the shape of the śikhara which can be round, square or octagonal, though its profile is invariably bell-shaped (map 12);
- an almost 100% variance with regard to combinations of kāl profiles and additional decorative details such as the idaḷ, kaṇṭha, panels, nāṭṭya-peṇs and vyālīs (Figs. 50-54, pp. 252, 254, 260 and 262), indicating the existence of a check-list of theoretical combinations (p. 249) on the basis of which each possibility was tried out once;
- a tendency to vary the types of base in connection with one particular set of kāl shapes (Figs. 50 and 52);
- a tendency to vary the types of layout combined with one type of base (Figs. 39-40, pp. 208-09 and Fig. 52, p. 254);
- inventions of new types of base coinciding with the introduction of new layouts (appendix 12); and
- a steady increase in the number of images in niches resulting in adaptations of the layout (appendices 7, 9, 10-11, 13 as compared with 14-15).

On the basis of these group-characteristics the Early Coḷa koyils can be divided into two distinctive clusters, one belonging to the 9th century and the second more or less coinciding with Uttama Coḷa's reign (A.D. 969-985). The monuments built during the intermediate period first show a strict adherence to the mentioned individual features (Tiruppurambyam, Tiruvādūtūrai and Karandavai) as well as a prolongation of the group-experiments, and later on do not demonstrate a strong link with either the first or the second cluster (Tirukkalitṭai, Tiruppalluṭṭai, Tiruppalluṭṭai). The same applies to all monuments outside the Kāvēṛī area which are carrying inscriptions which explicitly mention the involvement of members of the royal family in connection with the construction of the koyils in question.

In contrast to the second cluster there is a third group of shrines characterized by:

1. a 100% variance with regard to the vimāṇa - ardhamaṇḍapa layout (appendix 11);
2. an ostentatious preference for two known types of base, viz. those at Tañjāvūr and Gaṅgaikoṇḍaḷapuram (appendix 11, Fig. 54, p. 262);
3. a mere duplication of known combinations of kāl shapes without additional decorative details and without the more impressive polygonal shaft (Fig. 52, p. 262 as compared with Fig. 52, p. 254).

Individual but "variable" features are, moreover, the frequent use of kūrṇas, the replacement of the makaratorṇa by a kapota and a frieze of lotus petals instead of bhūtagaṇas (Figs. 58 and 60, pp. 303 and 306) as well as the application of the T-shaped podigai when a temple was raised at a new site. The third group consists of about ten shrines all built in the first half of the 11th century when manpower was concentrated at the two Coḷa capitals.

An intermediate, fourth group of koyils clearly demonstrates a transitional character, for it already shares the maximum variety of layouts with the 10th century monuments, whereas, on the other hand, it displays the ingenuity of the early sthāpatis with regard to the selection of kāl shapes (Fig. 52, p. 254) and a tendency to combine two types of layout with two types of base. Moreover, the steady increase in the number of images in niches came to a standstill during the construction of this group. However, at the same time, the number of devakoṣṭhas in the walls of the Rājaraṇeśvara at Tañjāvūr increased tremendously while, concurrently, it became customary to place figures inside maṇḍapas.

From the above it is obvious that clusters and, consequently, individual monuments can be dated within relatively narrow limits as indicated in the following section.

The development of Coḷa architecture between A.D.850-1044

Before paying attention to the question where to place the caesurae between the Pre-Coḷa and the Early Coḷa period as well as between the Early Coḷa and Middle Coḷa period we shall first summarize various phases of development. Each of them is characterized by a specific cluster of monuments and presents a particular scheme.

- A.D. 870 This phase is best represented by the Vijayālaya Coḷeśvara at Nārttāmalai. Its appearance reflects the regional practice of carving huge panels on the inside walls of caves dedicated to either Śiva, Viṣṇu or the Jina and to worship simultaneously minor deities in separate, tiny chapels. The walls of the shrine demonstrate that the otherwise capable artists ignored the possibility of turning the interior of the caves inside out and, consequently, left the first wall of this tall tritala plain.
- 870 - 900 Emphasis on Śaiva religion resulting in liṅga worship and exclusion of the cult of Viṣṇu and the Jina; experiments with all eleven essential features mentioned above; crystallization of two dominant types, viz. the dvitala at Nemam and the ekatala at Tirukkajavūr; introduction of three types of base as well as the polygonal and round pilasters.
- 900 - 940 Further experiments with regard to the shape of pañjaras and their position on the walls; during this period these elements diminished in size and number; acceptance of a false antarāla in combination with five niches in an ekatala.
- 940 - 969 Adoption of an iconographical layout requiring five niches in the Tiruchirappalli District and in South Arcot; otherwise no further additions.
- 969 - 985 No further experiments with the shape of the vimāna; introduction of a new type of layout; introduction of new types of base in combination first with ekatalas, then with dvitalas and finally with one tritala; new combinations of kāl shapes among the full set of pilasters; variations of kāl shapes on one and the same pilaster; systematic variance of additional kāl features which are each time repeated above another type of base; complete series of existing vimāna types on one particular type of base.
- 985 - 1000 Phase in which all types of dvitalas occur in combination with all types of layout; re-introduction of the pañjara and/or lateral niches in either the vimāna or the ardhamandapa; continua-

tion of kāl experiments; no further experiments with the base
 reduction of a new layer in the upāna, a kumbhapañjara in the re
 and a change in the position of the lateral niches, for the
 longer occupy the recessed wall space but the projecting base
 introduction of a new type of podigai.

A.D.1000-1044 Phase in which all former types of vimāna are combined with
 types of layout; preference of two former types of base;
 reduction of kāl shapes as well as additional kāl features
 occasional imitation of features introduced in the design of
 Rājarājeśvara (position of niches, kumbhapañjara, shape of
 podigai); first appearance of kapota above niches; liberal at
 titude towards Vaiṣṇavism and Jainism.

There remains a problem which has never been tackled properly by any author
 viz. which of these seven phases belong to the Early Coḷa period and which
 should be attributed to the Middle Coḷa period. In this connection, we can
 apply several criteria.

In the first place, styles can be related to changing religious practices.
 From this point of view the Early Coḷa period would fall between A.D. 871-
 i.e. the time in which a strict Śaivism seems to have dominated the mind
 the Coḷa kings and, consequently, those of their sthāpatīs and sculptors. The
 preceding phase was characterized by a liberal attitude on the part of the
 rulers towards other Hindu deities as well as Buddhism and Jainism. We are
 informed about the villagers but during the Middle Coḷa period this earlier
 liberal attitude had definitely reached the village level throughout the
 territory.

In the second place, the dichotomy between experimental (Early) and mature
 (Middle) stages in a development can be used as a criterion. Depending
 definition of "experimental" and "mature" and depending on the features
 which these terms are applied, the Early Coḷa period covers the years A.D.
 985. For, experiments with regard to the general layout and vertical com
 tion were carried out throughout that period. In later years the sthāpatī
 recombined the earlier types. The huge buildings at Tañjāvūr and Gaṅgaik
 puram are enlargements of the Early Coḷa dvitāla in combination with a s
 type of ardhamandapa. The height of these two monuments is the result of
 tāla upon tāla in an ever diminishing size. Alterations with regard to
 and, moreover, purely decorative details such as the shape of the podigai,
 design of the kumbhapañjara as well as the incorporation of adhiṣṭhāna
 mouldings into the upāna can be considered the demarcation of the stage

urity. The height of the two imperial monuments seems to accentuate this sense of age of Coḷa architecture.

In the third place, changes in technique can be used as a criterion. However, this criterion produce no results, for important changes did not occur before the beginning of the Late Coḷa period. It was only in the 12th century that bricks were re-introduced as building material, especially for the superstructures. Previously, the technique consisted of piling up large blocks of granite till the required height was reached. Horizontal beams were placed upon these walls in order to span the width. In general, the floor consisted of a layer of granite slabs. The disadvantage of this criterion is obvious, for it eliminates the so-called Middle Coḷa style, while on the other hand, the Early Coḷa period would cover more than two centuries. A period of this length is not helpful in understanding the developments which took place.

In the fourth place, changes in the most important feature of a particular style of architecture can be used as a criterion. In our opinion the niche is the most important contribution of the early Coḷa sthāpatis to South Indian architecture. As the framework of the devakoṣṭha changed drastically only in the Late Coḷa period, this criterion — like the previous one — makes a intermediate period redundant. It, therefore, has to be rejected as well.

In the fifth place, changes in the corbel might be used as a criterion as is commonly done in Western architecture. Basing ourselves on this characteristic the Early Coḷa period should once more be dated between A.D. 870-985. This criterion has the advantage that it distinguished not only the Early Coḷa style from the Middle Coḷa style, but also the pre-Coḷa from the Early Coḷa phase and the Middle Coḷa from the Late Coḷa monuments.

In view of the above considerations we propose c. A.D. 870 as the beginning of the Early Coḷa period while its end coincides with the death of Uttama Coḷa in A.D. 985. The Middle Coḷa period covers the reigns of Rājarāja I (A.D. 985-1012) and his son Rājendra I (A.D. 1012-1044) and most probably extends well into the days of Kulottuṅga I (A.D. 1070-1120).

3. The influence of Early Coḷa architecture outside the Coḷamaṇḍalam

We can be brief with regard to the extent of Early Coḷa influences which we postulated in chapter one. For, it is basically regional, despite the political expansion of Coḷa power during the reign of Rājarāja I.

The few shrines built after A.D. 1000 in the Palar region indicate dependent regional development, while in the 10th century no kings ruled the area effectively nor were stone temples carrying royal names erected. The formation of a province near the border into one situated more or less in the heart of a large empire may well have stimulated the economic circumstances of its population. Consequently, the artistic revival of this old cultural area reflects more its original roots than the political domination of the Cola.

In South Arcot the Early Cola period covers the second half of the 10th century. Here the monuments display Early Cola characteristics. This should, however, not be interpreted as an indication of cultural influence by the Cola in this area. For, it appears that whoever ruled this part of the country left his imprint in the form of one or two shrines. This practice did not, however, create a regional style in which alien ideas were blended successfully.

In the Tiruchirappalli District building activities were reduced to a minimum after the school of Āditya I moved into the delta. From this conclusion we may conclude that the monuments erected under the supervision of the Irakkuveḷ chieftains — apart from even more convincing arguments based on style — were not raised by local artists but by the sthāpatis and craftsmen belonging to Āditya's atelier.

We may summarize our quest of the origin and influence of Cola art by saying that its roots lay at the foot of the tall building at Nārttāna while its influence did not reach much further north than the shadow of the gaikondacoleśvara at noon in spite of the name of this monument.



Dutch Summary

(voor plaatsnamen zie kaarten 1-3)

In het zuidelijke gebied van Voor-Indië dat ongeveer samenvalt met het huidige Tamil Nāḍu, is tussen 850-1050 A.D. een bouwstijl ontstaan die tot op heden — althans daar — onovertroffen is. Alle artefacten uit die periode, zoals tempels en stenen of bronzen godenbeelden, worden in de kunstgeschiedenis als vroeg en Middel Coḷa aangeduid, naar de dynastie die Tamil Nāḍu in die tijd regeerde. De Coḷamaṇḍalam (=gebied der Coḷas) viel aanvankelijk samen met de Kāverī delta en daar zijn dan ook de meeste en indrukwekkendste vormen van Coḷa kunst ontstaan.

Tot op heden is weinig bekend over de vroege geschiedenis van de Tamils en hun religie. Op grond van een aantal oude grottempels gewijd aan Śiva, Viṣṇu en de Jina kan men aannemen dat deze drie godsdienstige stromingen aan de vorstenhoven bekend waren. Het is echter de vraag of deze uit het Noorden geïmporteerde religies weerklank vonden bij de lokale bevolking. Afgaande op het zeer geringe aantal vroege stenen koyils (=tempels), mag men stellen dat pre-Arische goden bij de dorpingen lang populair gebleven zijn. Trouwens dat zijn ze nog steeds. Het grote aantal grottempels lijkt hiermee in tegenspraak, maar men moet zich realiseren dat deze vrijwel nimmer in de dorpskern gesitueerd waren en bovendien meer ten dienste stonden van een groep religieuzen. Is onze kennis over de religieuze verhoudingen al vaag, de opkomst van de Coḷas is nog meer in nevelen gehuld. Wel is bekend, dat de eerste grote Coḷa vorst Āditya I, een fervente aanhanger van Śiva was en dat hij in een groot aantal dorpen langs de Kāverī granieten heiligdommen liet bouwen, die de Śaivaitische eredienst vermoedelijk veel dichterbij het volk brachten.

Grottempels zijn echter geen basis voor een ontwikkeling in de vormgeving van een structurele bouwstijl. Wel kan men uit hun bestaan afleiden dat er een

hoogontwikkelde techniek bestond ten aanzien van het bewerken van graniet. Een a-Śaivaitische instelling van de bevolking is al evenmin bevorderlijk voor een architectuur die bij uitstek bekend staat door het etaleren van vele facetten van een god die in het verborgene huist. Een puristische verering van een koning ten opzichte van één godheid in een land waar toen drie godsdiensten het religieuze spectrum beheersten, is een derde factor in de ontwikkeling van de Coġa bouwstijl bemoeilijkte en in elk geval belemmerde. Niettemin ontwikkelde de Coġa architectuur zich in ruim een eeuw uit kale granieten doosjes van niet meer dan $4 \times 4 \text{ m}^2$ tot het ontzagwekkende hoge granieten gevaarte dat met een vloeroppervlak van $30 \times 30 \text{ m}^2$ in het centrum van Tañjāvūr — de hoofdstad der Coġas — niet alleen de stad maar de gehele omgeving domineert.

Onze intense verbazing over een zo snelle ontplooiing van talenten voor het bewerken van moeilijk te bewerken materiaal vertaalde zich bijkans vanzelfsprekend in een probleemstelling van dit proefschrift. We wilden weten hoe een dergelijke ontwikkeling is verlopen, binnen welke tijdsgrenzen de Vroege Coġa periode moet worden, en hoe ver de slagschaduw van deze "torenhoge" ontwikkelingen reikte.

In het eerste hoofdstuk wordt uiteengezet waarom de beantwoording van onze, door anderen reeds eerder opgeworpen, vraagstelling tot nu toe onbevredigend is geweest. Dit laatste is het gevolg van de toegepaste onderzoeksmethoden. Het was en is nog steeds gebruikelijk de tempels te dateren op basis van de in hun muren gebeitelde inscripties. Daarnaast worden de monumenten van een jaartal voorzien met behulp van bepaalde stijlkenmerken van de in de omgeving aanwezige beelden. Aangezien aan beide methoden ernstige bezwaren kunnen worden gesteld, stellen wij een derde voor, die waarde toekent aan de locatie van een monument binnen een gegeven spreiding van andere monumenten met dezelfde stijlkenmerken ten opzichte van een (cultureel) centrum, d.w.z. Tañjāvūr. We gaan daarbij uit van de gedachte dat de expansie van het zich eertijds ontwikkelende nieuwend religieus besef is af te leiden uit de spreiding der tempels. Indien dien zal de godsdienstige ontwikkeling — waarvan verondersteld wordt dat deze in Zuid-Indië gepaard ging met een gestage uitbreiding van specifieke grafische voorstellingen — blijken uit de variatie in tempeltypen. Hoe verder de gebouwen verder van het religieuze middelpunt liggen, zijn volgens ons gedachtengang de variaties recenter.

De kern van dit hoofdstuk bestaat uit een overzicht van distributie

men, die men in Tamil Nāḍu mag verwachten op grond van beschikbare informatie over terreineigenschappen, het sociale en politieke leven van de negende tot en met de elfde eeuw en de ontwikkelingen die zich gedurende deze drie eeuwen in de geografie van Zuid-Indië hebben voltrokken. Deze, overigens schaarse, gegevens zouden in eerste instantie de tempelonderdelen die wij wilden bestuderen. Het maakte zij het mogelijk de kaartbeelden, die de verspreiding van variabelen per tempelonderdeel weergeven, te interpreteren.

In het tweede hoofdstuk wordt een globaal overzicht gegeven van de architectuur in de veronderstelde bakermat der Coḷa kunst. In dit kader worden essentiële kenmerken van de tempels in noordelijker gelegen cultuurgebieden besproken, en wel die van de Pallavas, de Cāḷukyas, de Bāṇas en de Westelijke Pāṇḍyas. Tevens wordt aangetoond dat er geen invloeden van de Pāṇḍyas op de Coḷa architectuur te bespeuren zijn, omdat dit volk dat ten zuiden van de Coḷamaṇḍala leefde, voor zover bekend tot het einde van de negende eeuw uitsluitend uit tempels uithieuw. Bovendien wordt een overzicht gegeven van de heersende opvattingen omtrent de datering en ontwikkeling der Vroege Coḷa stijl. Het hoofdstuk besluit met een verantwoording van de keuze der tempelonderdelen, die in de volgende twee hoofdstukken aan de orde komen.

In het derde hoofdstuk vindt de vaststelling plaats van perioden en gebieden waarin de Vroege Coḷa stijl zich ontwikkelde. We bespreken achtereenvolgens de distributiepatronen van de vimāna (= sanctum) in al zijn varianten, de vimāna met pañjaras (= nis vervangende muurdecoraties) in al zijn verscheidenheid en van de ardhamāṇḍapa (= voorhal), alsmede de wijze waarop deze aansluiten aan de vimāna. Belangrijke variabelen in zowel de vimāna als de ardhamāṇḍapa zijn enerzijds het aantal in de buitenmuren aanwezige nissen, het grondplan, de hoogte als ook het aantal pilasters en anderzijds de strikte verbandenhang tussen grondplan, hoogte en aantal pilasters. In alle spreidingspatronen laat zich een centrum onderkennen met daaromheen een aantal zōnes, elk gevuld met op elkaar gelijkende monumenten. In de onmiddellijke omgeving van Kāñjāvūr werd geëxperimenteerd met alle genoemde onderdelen en hun varianten. Het is opmerkelijk dat men aanvankelijk zoveel mogelijk nissen verwerkte in een met de Pallava stijl verwant grondplan. Voorts trachtte men op allerlei manieren de nissen te elimineren. Deze poging zou men eventueel kunnen verklaren door een verbod aan de kunstenaars om, naast de manifestaties van Śiva, nog andere goden af te beelden. Deze experimenten zijn duidelijk uit een vijftiental monumenten af te lezen. Zij resulteerden in twee hoofdtypen. Het eerste is de drienissige dvitala (= gebouw met twee verdiepingen plus koepel) die vrijwel uitsluitend ten westen van de hoofdstad voorkomt. Het tweede type — een dvitala met vijf nissen

waarvan drie in de vimāna en twee in de ardhamandapa — treft men voornamelijk ten oosten van Tañjāvūr aan. Het verschil in voorkomen is geografisch. Ten westen van deze stad woonden eerstijds de Muttaraiyars en Irukkuvels, vazallen van de Coḷas bezaten een historisch aanwijsbare voorkeur voor twee goden van het zgn. tweede echelon, nl. Gaṇeśa en Durgā, die zij uitsluitend aparte kapelletjes vereerden. Waarschijnlijk maakte deze gewoonte nissen voor deze twee goden in de muren van de ardhamandapas overbodig. De Coḷas zelf deden vermoedelijk deze specifieke vormen van eredienst niet, zodat in hun nieuwe heiligdommen opgericht werden die — overigens in navolging van de eerderlijke gelegen bouwstijlen — nissen voor beide goden in de muren van de ardhamandapa hadden. De regionale voorkeur voor een bepaalde hoogte van de gebouwen kan samenhangen met de totaal verschillende geologische gesteldheid in beide streken. De Irukkuvels woonden in een gebied met graniet terwijl de Coḷas zetelden in de Kāverī delta op grote afstand der steengroeven.

Ten oosten van de zône met dvitalas bevindt zich een gebied waar voornamelijk merendeel ekatalas werden opgetrokken die met enkele dvitalas de volgende kenmerken gemeen hebben: een vergroot aantal nissen in de buitenmuren van de tempels, hetgeen alsmede de afwezigheid van de pañjaras zowel in de vimāna als in de ardhamandapa. Het oostelijk van deze zône gelegen kustgebied herbergt tempels die opnieuw pañjaras vertonen, maar nu óf langs de muren van de vimāna óf langs de muren van de ardhamandapa. Het aantal nissen per muursegment is afhankelijk van de aanwezigheid van pañjaras en kan maximaal drie bedragen. In deze zône bevindt zich tevens de enige tritala (= gebouw met drie etages plus de koepel). De tempels, van west naar oost toenemende omvang van de tempelgebouwen, zowel naar aantal nissen als hoogte gerekend, mag men naar onze mening relateren aan missieactiviteiten, die zich van Tañjāvūr uit geleidelijk in oostelijke richting uitbreiden kunnen verbreiden. Op grond van het toenemend aantal nissen — en dus van de godenbeelden — mag men aannemen dat er tegelijkertijd religieuze ontwikkelingen plaatsvonden. De behoefte aan nissen werd op den duur namelijk zo dringend dat men er toe overging muren van oudere tempels te beschadigen en daarin gaten te haken om de recentere beelden ten toon te kunnen stellen. Het letterlijke hoogtepunt van deze manifeste behoefte is de Rājarājeśvara in Tañjāvūr die in zijn muur vele tientallen nissen telt.

De tot nu toe geschetste religieuze en architecturale ontwikkelingen speelden zich voornamelijk af in het eigenlijke Kāverī gebied. De noordelijke streken waren door het ineensinken van de macht der Pallavas in een cultureel vacuum geraakt. Deze situatie lijkt door de architectuur te worden geïllustreerd. In het noorden werden de eerste tekenen van Coḷa invloed namelijk pas merendeel vijftig jaar nadat de eerste complete Coḷa tempel was ontworpen. Zo werden

4. in South Arcot — gelegen tussen de Palar streek en de Kāverī delta — slechts enkele ekatalas en dvitalas gebouwd volgens het Coḷa model. Over het meeste aantal nissen bleef echter nog lang onzekerheid bestaan. Hieraan kwam een eind tegen 1000 A.D. In het eigenlijke Pallava gebied zelf was in de negende eeuw geen sprake van tempelbouw en dus ook niet van Coḷa invloeden daarop.

De doordachte wijze waarop aanvankelijk met grondplan, hoogte en aantal pilasters geëxperimenteerd werd lijkt er op te duiden dat er — zeker gedurende de jaren 870-900 A.D. — een atelier bestond dat verantwoordelijk was voor alle in die tijd ontworpen heiligdommen langs de Kāverī. In scherpe tegenstelling tot deze gevarieerde groep monumenten staan de koyils die tussen 969-985 A.D. werden ontworpen. Zij vertonen een zeer uniform beeld. Dit kan echter ook geïnterpreteerd worden als een aanwijzing voor het bestaan van een atelier. Hieronder veronderstellen wij op grond van het na 985 A.D. sterk verminderende aantal nieuwe tempels, dat dit tweede atelier in zijn geheel werd overgebracht naar Tanjāvūr. Daar was het verantwoordelijk voor het verrijzen van de Rājaraṣvara in ongeveer twintig jaar. Dit zou kunnen verklaren waarom elders in de delta slechts kleine kapellen werden gebouwd die niet langer de onderlinge samenhang vertonen welke de zojuist genoemde groep zo sterk kenmerkt.

In het vierde hoofdstuk zijn wij uitgegaan van de gebieden en perioden die wij in het vorige hoofdstuk leken uit te kristalliseren. De veronderstelling dat er inderdaad twee ateliers hebben bestaan, nl. een ouder onder Āditya I en een later dat onder supervisie stond van Śembyan Mahādevī — resp. gemalin, moeder en tante van drie opeenvolgende Coḷa vorsten — blijkt te worden bevestigd door bestudering van alle distributiepatronen die in dit hoofdstuk aan de orde kwamen. Er is namelijk een opmerkelijke strikte variatie in de diverse tempelonderdelen, die bovendien een sterke samenhang vertoont. Men krijgt de indruk dat de sthāpatis (= bouwmeesters) nadrukkelijk hebben willen voorkomen dat de monumenten in decoratief opzicht op elkaar zouden gelijken. Dit zou er op kunnen wijzen dat er een gedetailleerde registratie bestond van alle in ruim een eeuw gebouwde koyils.

Hierna worden de "decoratieve" onderdelen t.w. de basis, de pilaster, het dak en het korbeel, achtereenvolgens aan de orde gesteld.

De basis is een complex geheel bestaande uit drie elementen, nl. de upāna (= platform), de adhiṣṭhāna (= plint) opgebouwd uit ten minste drie lagen, en de vari (= sierrand langs de muur). Van deze drie is de upāna altijd een afzonderlijk onderdeel; de adhiṣṭhāna daarentegen dient in veel gevallen slechts als decoratie van de onderste blokken waarmee de tempelmuren zijn opgetrokken.

De verspreiding van de adhiṣṭhānavarianten is chaotisch. De vari kent geen varianten en levert derhalve geen belangwekkend kaartbeeld op. De inventarisatie van de diverse typen upāna is niet compleet. Het platform wordt name vaak aan het oog onttrokken door later aangebracht plaveisel. Aangezien van deze drie belangrijke tempelonderdelen duidelijk regionaal gebonden kunnen zij niet zonder meer als dateringscriterium dienen. Wanneer men de spreiding echter vergelijkt met het in het derde hoofdstuk verkregen kaartbeeld, wordt wel duidelijk dat in elke fase en bijgevolg in elk deelgebied (langs de Kāverī) één of meer adhiṣṭhānatypen aan het Coḷa idioom werden toegevoegd. Het is zelfs waarschijnlijk dat men — toen de mogelijkheden in het combineren van plintonderdelen uitgeput leken — in de voorlaatste fase de nadruk heeft verlegd naar het platform. Hieraan werd namelijk een, mispākapota (= kroonlijst) toegevoegd.

De Coḷa vari is uitgedacht in het kleine kerngebied rond Tañjāvūr. Vroege tempels vertonen een telkens weer andere versie en plaatsing zowel langs de muren van de eerste verdieping als langs de hāra (= snoer van de korymben boven een kroonlijst). Het monument in Kumbakonam (886 A.D.) lijkt op dit aspect betreft de experimentele fase af te sluiten. Nadien werd slechts één soort vari aangebracht, die door alle nissen onderbroken wordt. Deze variant en het type nis dat de vari onderbreekt werden na 950 A.D. zowel in South Arcot als in het Palar gebied gebruikelijk.

De verhoogde upāna — een type platform dat bekend was van Pallava — duikt opnieuw op rond 990-1000 A.D. Opvallend is overigens dat dit in alle districten gelijktijdig gebeurt.

De spreiding van de vierkante kāl (= pilaster) is sterk regionaal beperkt. Hij beperkt zich tot het Tiruchirappalli District en de Palar streek. De Kāṇṭha maṇḍalam wordt daarentegen gekenmerkt door een grote verscheidenheid aan combinaties van vier typen pilaster, nl. de ronde, de vierkante, de achthoekige en de veelhoekige kāl. Deze combinaties vormen associaties samen met andere pilasterdecoraties zoals lotusknoppen, idaḷ (= lotusbloembladeren aan de basis = echinus), nāṭṭya-peṇs (= danseressen) op de palagai (= abacus) en kleine figuren in het verlengde van de pilasters onder de vari en de kaṇṭha. Op grond van deze variatie zijn de producten van beide ateliers duidelijk herkenbaar als twee afzonderlijke groepen.

De śikhara is een koepelachtige doch gestapelde dakconstructie van stenen blokken die als deksteen een omgekeerde lotus heeft waarop tijdens de inwijdingsceremonieel een stūpī (= pot) wordt geplaatst. Deze "koepel" is

tri, vierkant of achthoekig zijn. Geen dezer grondvormen is aan een bepaalde regio gebonden. Het profiel is onveranderlijk klokvormig. De ontwikkeling van de *śikhā* (= nis in de "hals" van de *śikhara*) vertoont een evolutionaire tendens. Eerwankelijk was deze nis niet meer dan een bouwsteen waarop — overigens zeer vaak — Śiva, Viṣṇu, Brahmā of Ūmā werden afgebeeld. De overgang via een steen waarin een dergelijke steen geplaatst kon worden naar een echte nis, gescheiden door pilasters en afgedekt door een balk, is op de monumenten in het Kuchirappalli District waar te nemen. Op grond van deze ontwikkeling moet ons dus eens een groot aantal tempels aanzienlijk later gedateerd worden dan tot nu toe gebruikelijk was. Deze opvatting wordt bevestigd door de vari, die op deze tempels reeds in de latere standaardversie langs de *hāra* loopt. In de centrale en oostelijke delen van de delta zijn de meeste *śikharas* helaas onherkenbaar of door nieuwbouw of door pleisterwerk.

De *podigai* (= korbeel) wordt tot de bouw van de Rājarājesvara te Tañjāvūr in twee typen uitgevoerd. Beide varianten vertonen trekken van de oudere Cāṭukya en Pallava korbelen. Rond de hoofdstad treft men van beide typen mengvormen aan waaronder die welke vervolgens de stijl hebben bepaald. Na de introductie van het later type te Tañjāvūr ca 1000 A.O. werden de oudere varianten nog herhaaldelijk toegepast, althans langs de Kāverī. In het Palar gebied daarentegen werd de nieuwe vorm onmiddellijk overgenomen.

Een van de belangrijkste conclusies van ons onderzoek betreft de vaststelling van de meest essentiële structurele en decoratieve kenmerken van de Coṭa architectuur tussen 850-1044 A.D. De drie voornaamste hiervan zijn in de eerste plaats de op den duur geslaagde vormgeving van de nis, die zowel in de Cāṭukya als in de Pallava bouwkunst gebrekkig was en in de Muttairaiyar/Pāṇḍya stijl zelfs niet bestond. In de tweede plaats munt de Coṭa architectuur uit door een consequent toepassen van een verrassend goede verhouding tussen grondplan, hoogte en aantal pilasters. In de derde plaats vertoont zij een strikte variatie in de combinatie van basis- en pilastertypen.

Een tweede belangrijk resultaat van onze studie is de conclusie dat de Coṭa stijl zich tussen 870-1044 ontwikkelde via zes duidelijk te onderscheiden stadia. Deze werden voorafgegaan door een niet scherp af te grenzen periode waarin de Muttairaiyars een prototype van de Coṭa tempel ontwierpen.

Een derde uitkomst van ons onderzoek is de vaststelling dat de Coṭa architectuur gedurende de eerste twee eeuwen van haar bestaan op de bouwstijlen der omringende districten slechts geringe invloed heeft uitgeoefend.

Zij is, vertraagd, merkbaar in South Arcot, maar nauwelijks in het oude Pa gebied. Daar ontstond namelijk na 1000 A.D. een regionale stijl die geënt op zowel de Coļa als de Pallava architectuur. De Coļa bijdrage in deze regionale variant beperkte zich tot de vormgeving van de nis en de vari.

Het probleem van de caesuur tussen de Vroege en de Middel Coļa periodes tenslotte, kon ook worden opgelost. Men kan de Vroege Coļa stijl op grond verschillende criteria van de daaraan voorafgaande en de daarop volgende afbakenen. Wanneer men als voornaamste onderscheid de aanwezigheid van een volledig uitgevoerde nis hanteert, begint deze stijl ca 870 A.D. In dit moet echter wel worden opgemerkt dat ons inziens de sthāpatis van het monument te Nārttāmalai de kern waren van de school van Āditya I. De overgang van de Vroege naar de Middel Coļa periode kan niet worden vastgesteld op van dit criterium omdat de vormgeving van de nissen pas rond 1070 A.D., gedurende de Late Coļa fase, sterk gewijzigd werd. Wanneer men zich echter seert op de afwezigheid van experimentele vormen ten aanzien van grondplaanbasis en pilastercombinaties, dan dient de caesuur tussen de Vroege en de Coļa periode bij de troonsbestijging van Rājarāja I te worden gelegd. De Coļa architectuur kenmerkte zich in dit geval door een sterke reductie van decoratieve variatiemogelijkheden en het terugvallen tot een stadium waar slechts oude vormen — overigens wederom zeer systematisch — opnieuw werden arrangeerd. Tijdens deze opmerkelijke tussenperiode werd voornamelijk gewerkt in Tañjāvūr en in Gaṅgaikoṇḍacoļapuram. De "pyramiden" die daar verrezen de handen van de sthāpatis van Śembyan Mahādevī's atelier, droegen ondanks omvang niet bij tot een vernieuwing van de Coļa bouworde. Elke volgende dieping is namelijk een verkleinde weergave van de vorige — een systeem van een Vroeg Coļa model ten grondslag lag.

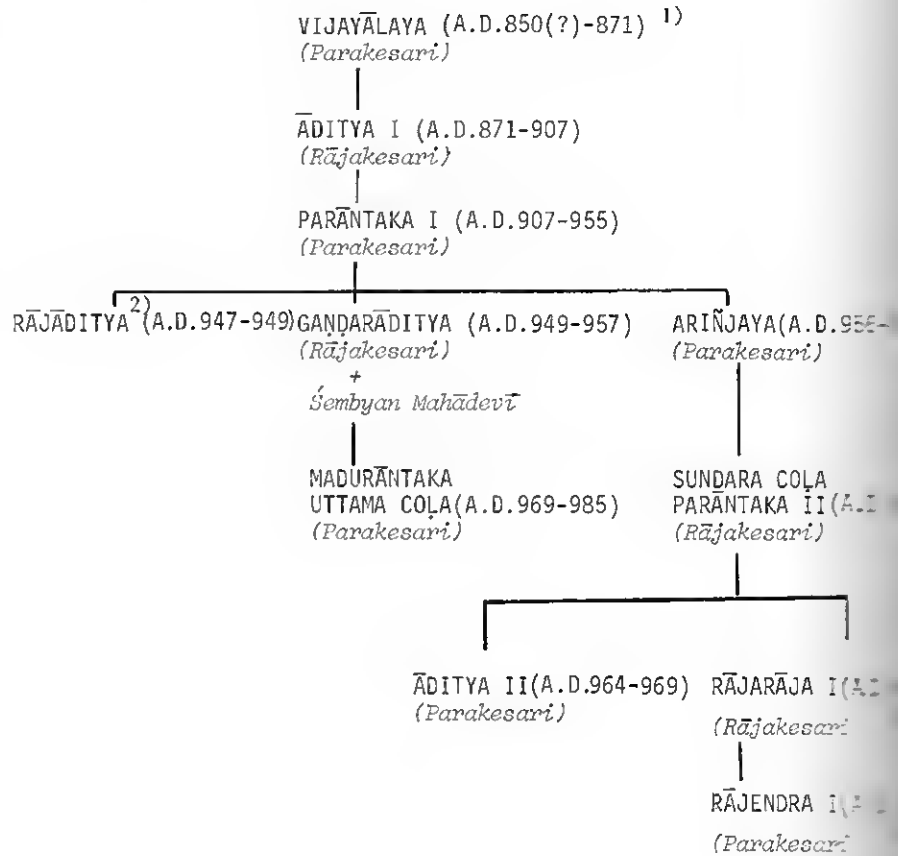
Het verschil tussen de Vroege en de Middel Coļa architectuur zou als volgt kunnen worden geformuleerd. Terwijl de Vroege Coļa bouwkunst een sterke variatie in tempelonderdelen en een ruimtelijke ontwikkeling vertoont, wordt de Middel Coļa architectuur gekenmerkt door een nauwgezette imitatie van de geaccepteerde Vroege Coļa vormen en door "een streven naar omhoog".



Appendices

Appendix 1

Genealogy of the Early Colas



1) There is a consensus of opinion about the end of Vijayālaya's rule, but the year in which he started his reign is unknown.

2) As Rājāditya was not given a honorific title he may not have been anointed.

Appendix 2

Alphabetical list of places in which Early Cola temples are located. Districts are indicated between brackets: Tj=Tañjāvūr; N.A.=North Arcot; S.A.=South Arcot; Tri=Tiruchirappalli and Ch.=Chingleput. In the spelling we have followed the system used by Rangacharya. The names of the koyils are given in Sanskrit.

- Aaturai (Tj), Āpatsahāyeśvara
 Ambakkam (Tri), Kailāsanātha
 Ār (Tri), Pañcanādīśvara
 Paśupatīśvara
 Aengūr (Tj), Agastyeśvara
 Aññanallūr (Tri), Vaṭatīrthanātha
 Aññūr (S.A.), Śrīmūlanātha
 Brahmadēśam (S.A.), Brahmeśvara
 Pātāleśvara
 Brahmadēśam (N.A.), Candramoulīśvara
 Brīttūr (Tri), Agnīśvara
 Bōlāpuram (Tj), Agnīśvara
 Bādāpuram (S.A.), Kundavai Vinnagar Alvar
 Iravikulamanikka Tīśvara
 Bnadi (Tri), Śiva Koyil
 Brumbūr (S.A.), Kadambavaneśvara
 Bēālem (S.A.), Rāmanātheśvara
 Bendaradittam (Tri), Sokkanātha Koyil
 Bāgaikonḍacolapuram (Tri), Amman shrine or Uttara Kailāsa
 Boburapatti (Tri), Amaleśvara
 Bōvīndaputtūr (Tj), Gangājaṭādhara koyil
 Brāmam (S.A.), Śivalokanātha
 Bmbai (S.A.), Jambunātha
 Bāḷiyapaṭṭi (Tri), Śiva Koyil
 Bāmarasavalli (Tri), Karkoteśvara
 Bāñcī (Ch.)¹ Śokkeśvara
 Tirucacchimayana shrine in the compound of the
 Ekambaranātha
 Bāñḍiyūr (Tj), see Tirukkāñḍiyūr
 Bāñnanūr (Tri), Bālasubrahmaṇya Koyil or Subrahmaṇyeśvara
 Bārandai (Tj), Vasītteśvara
 Bāruttāṭṭāṅguḍi see Bārandai

Kāvanṭandālam (Ch.), Coḷeśvara
 Kilaiyūr (Tri), Agastyeśvara
 Coḷeśvara
 Kīlappaḷuvūr (Tri), Vatamūleśvara or Tiru Alandurai Mahādeva
 Kīḷiyanūr (S.A.), Agastyeśvarasvāmin
 Kṭṭūr (S.A.), Vīraṭṭaneśvara
 Kīranūr (Tj), Śivalokanātha
 Kiranūr (Tri), Uttamadanīśvara
 Koḍumbāḷūr (Tri), Mucukundeśvara
 Mūvar Koyil
 Kōṇerirājapuram (Tj), Umāmaheśvara
 Kōvilāḍi (Tj), Divyajñāneśvara
 Kōyildēvarāyanpēṭṭai (Tj), Matsyapūrīśvara
 Kuhūr (Tj), Āmravaneśvara
 Kūḷambandal (N.A.), Gaṅgaikoṇḍacoḷeśvara
 Kumāravayalūr (Tri), Agnīśvara
 Kumbhakōṇam (Tj)², Nāgeśvara
 Kuram (Ch.), Ādikeśvara Perumal
 Kuttālam (Tj), Uktavedeśvara
 Kuvam (Ch.), Tripurāntakeśvara
 Laḷgudi (Tri), Saptarṣīśvara
 Madagadipattu (S.A.), Tirukaṇḍīśvara
 Mahārājapuram (Tj), Śiva Koyil
 (Māmallapuram (Ch),³) Arjuna Ratha,
 (Pallava, prototype of Coḷa temples)
 Manampādi (Tj), Śiva Koyil
 Mēlappaḷuvūr (Tri), Sundareśvara, Amman shrine
 Melatiruppūndurutti (Tj), Puṣpavaneśvara
 Mēlpādi (N.A.), Coḷeśvara or Aruñjiyeśvara
 Somanātheśvara
 Nāgapattinam (Tj), Kāronasvāmin
 Nangavaram (Tri), Sundareśvara
 Nārttāmalai (Tri), Vijayālaya Coḷeśvara
 Melakkadambūr
 Nemam (Tj), Airāvateśvara
 Niyamam, see Nemam
 Nirpalani (Tri), Valarmadeśvara
 Panangudi (Tri), Agastyeśvara

1. Sēṣvaramaṅgalam (Ch), Senpakeśvara
 2. Sēṣvaram (Tj), Sattivaneśvara
 3. Sēṣadam (S.A.), Pralayakāleśvara
 4. Sēṣaṅgiyūr (S.A.), Śiva Koyil
 5. Sēṣgudi (Tri), Agastyeśvara
 6. Sēṣūr (near Brahmadeśam N.A.), Śiva Koyil
 7. Sēṣamaṅgai (Tj), Brahmapurīśvara
 8. Sēṣai (Tj), Naltunai Iśvara
 9. Sēṣanātha Kōyil (Tj), Pañcavan Mādevī Iśvara
 10. Sēṣayan Mahādevī (Tj), Kailāsanātha
 11. Sēṣalai (Tj), Sundareśvara
 12. Sēṣhalingamaḍam (S.A.), Vyāghrapādeśvara
 13. Sēṣūr (Tri), Śomeśvara
 14. Sēṣivāsanallūr (tri), Koranganātha
 15. Sēṣkōlam (N.A.), Jalanātheśvara
 16. Sēṣjāvūr (Tj), Rājarājeśvara or Brhadīśvara
 17. Sēṣnēri (Ch.), Kaṇḍalīśvara
 18. Sēṣlasthānam (Tj) ⁴ Ghr̥ta-sthāneśvara
 19. Sēṣdivanam (S.A.), Tirutiṇḍīśvara
 20. Sēṣuchchātturai (Tj), Ōdanavaneśvara
 21. Sēṣuchchendurai (Tri), Candrasekhara Koyil
 22. Sēṣuchchenḡaṭṭaṅguḍi (Tj), Uttarapatīśvara
 23. Sēṣuchchennampūṇḍi (Tj), Śaḍaiyar koyil
 24. Sēṣukkaḍaiyūr (Tj), Amṛtaghaṭeśvara
 25. Sēṣukkaliṭṭattai (Tj), Vedapurīśvara
 26. Sēṣukkaṇḍiyūr (Tj), Vīraṭṭaneśvara
 27. Sēṣukkalavūr (Tj), Madhuvaneśvara
 28. Sēṣukkaṭṭalai (Tri), Sundareśvara
 29. Sēṣukkāṭṭuppalī (Tj), Agnīśvara
 30. Sēṣukkodikkaval (Tj), Tirukkoteśvara
 31. Sēṣukkoḷikkāḍu (Tj), Agnīśvara
 32. Sēṣukkuhukavūr (Tj), Velladai Iśvara
 33. Sēṣumalavāḍi (Tj), Vaidyanāthasvāmin
 34. Sēṣumaliśai (Ch), Varadarāja Perumal
 35. Sēṣumaṇancheri (Tj), Udvāhanāthasvāmin
 36. Sēṣumaṅgalam (Tri), Sāmavedeśvara
 37. Sēṣumayānam (Tj), Jñānaparameśvara

Tirumiyachchūr (Tj), Mihirāruneśvara
 Tirumullaivāyil (Ch), Śrī Masilamanīśvara or Ākalanka Ratneśvara
 Tirunāgeśvaram (Tj), Nāgeśvara
 Tirunāmanallūr (S.A.), Bhaktajñāneśvara
 Tirunaṇṇaiyūr (Tj), Siddhanātheśvara
 Tiruppachchiyūr (N.A.), Vācheśvara
 Tiruppalanam (Tj),⁵⁾ Āpatsahāyeśvara
 Tiruppalturai (Tri), Ādimouliśvara
 Tiruppugalūr (Tj), Agnipurīśvara
 Tiruppūr (Tri), Śiva Koyil
 Tiruppurambyam (Tj), Sākṣīśvara
 Tiruttāni (N.A.), Vīraṭṭaneśvara
 Tiruvadandai (Ch), Varāha Perumal
 Tiruvādūtūrai (Tj), Gomukteśvara
 Tiruvaiyārū (Tj), Pañcanādīśvara
 Uttara Kailāsa
 Ten Kailāsa
 Tiruvakkarai (S.A.), Candramouliśvara
 Tiruvallaṅguḷi (Tj), Śrī-Kapardīśvara
 Kṣetrapāladeva
 Tiruvallam (N.A.), Bilvanātheśvara
 Tiruvāmattūr (S.A.), Abhirāmeśvara
 Tiruvāṇḍārkōyil (S.A.), Pañcanādīśvara
 Tiruvanmiyūr (Ch), Vedapurīśvara, Amman shrine
 Tiruvārūr (Tj), Acaleśvara
 Tyāgarājeśvara
 Wanyaganātha
 Tiruvēdikkudi (Tj), Vedapurīśvara
 Tiruveṇkāḍū (Tj), Śvetārāṇyeśvara
 Tiruverumbūr (Tri), Pipīleśvara
 Tiruviḍaimarudūr (Tj), Mahāliṅgasvāmin
 Tiruviḷakkudi (Tj), Maṇavaleśvara
 Tiruvirāmeśvaram (Tj), Rāmanātheśvara
 Tiruviśalūr (Tj), Śivayoganāthasvāmin
 Tiruvorriyūr (Ch), Ādipurīśvara
 Tribhuvana (S.A.), Varadarāja Perumal
 Tudaiyūr (Tri), Viṣamaṅgaleśvara

ġārgudi (S.A.), Anāntheśvarasvāmin
Mamallūr (Ch.), Sundara Varadarāja Perumal, Kailāsanātha (Pallava)
Kedareśvara
Kōṇḍān Tirumalai (Tri), Ujjīvanātha
Ġranyam (Tj), Vedāraṇyeśvara
achchēri (Ch), Dandipāṇīśvara
Makkam (N.A.) Śiva Koyil in Poinee Reservoir
Ġlūr (Tri), Bhūmīśvara
Ġlūr (Tri), Mārgasahāyeśvara
dhāchalam (S.A.), Vṛddhagirīśvara

Ġangacharya used the spelling Conjeeveram, but we prefer the old name
Ġāncī.

Ġmbakoṇam is a large town better known as Kumbakonam (spelt without h).

Ġangacharya used the spelling Māvalivaram or Māhabalipuram, but we have
used the old name Māmallapuram.

Tillasthānam is usually written Tillaisthānam, a spelling we prefer.

Tiruppayanam is usually spelt Tiruppalanam which is applied by us.

Appendix 3

Examples of horizontal and vertical composition of the first tala in Pallava, Gaṅga/Bāṇa and Cāḷukya architecture.

Fig. a-1. Development of Pallava niche; various early, complex ground-plans, early occurrence of fully developed pañjara (3), lotus base of pilaster (2); late appearance of kind of lintel above niche (6). Ground-plans 1 t/m 4 applied by Coḷas.

Fig. a-2. Hybrid character of Gaṅga style in one group of Jain Bastis; chaotic cut-out niches + vari (a) interrupted by niche; one-pilaster-pañjara (2), uninterrupted vari (1+2); complex ground-plans of which (c) copies from Coḷas (Puḷḷamaṅgai)

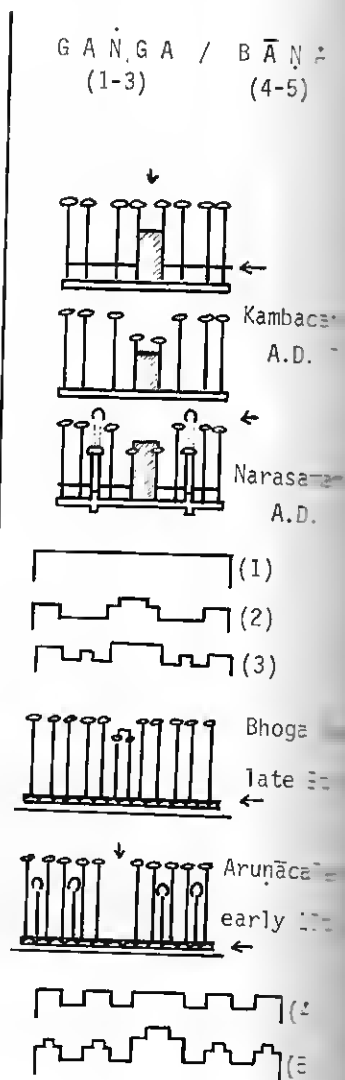
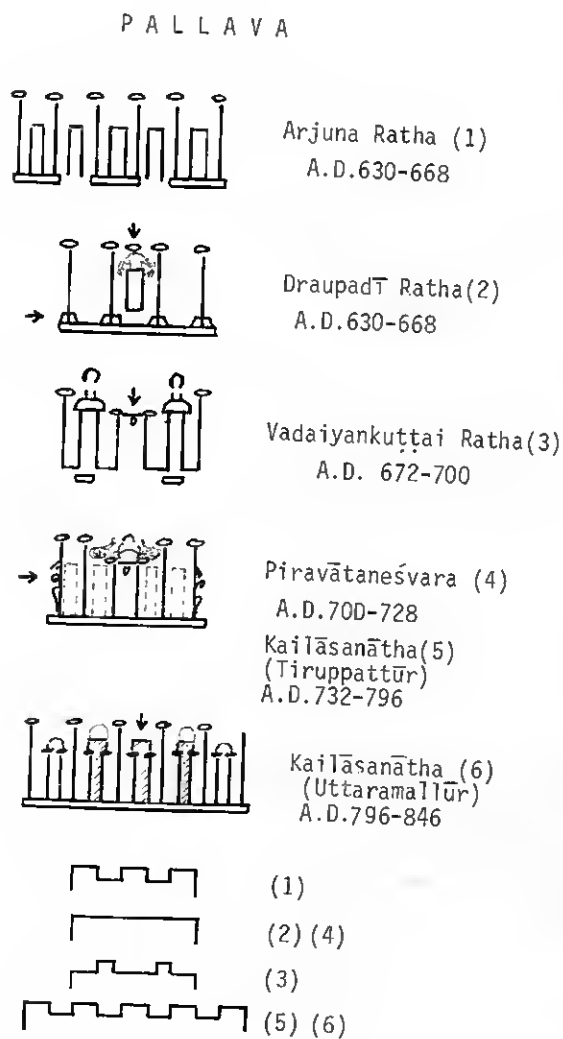
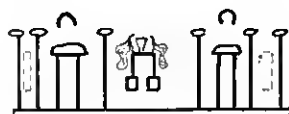


Fig. a-3. Picture-frame niches in Cālukya architecture; kapota + kind of toraṇa above windows and holes.

C Ā L U K Y A (WEST & EAST)
(1-2) (3)

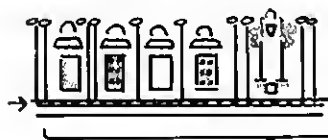


Nakkalagudi (1)
(Biccavolu)
A.D. 850-950

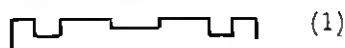


Goliṅgeśvara (2)
(Biccavolu)
A.D. 950-1050

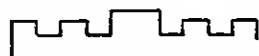
1060



Virūpākṣa (3)
(Paṭṭadakal)
ca. A.D. 750



(1)



(2)



(3)

Complex ground-plan (3) copied by architects of the Rājarājeśvara at Tanjāvūr, where it was applied to the platform only. Note the kapotas which are not supported by pilasters (3) in contrast to Middle Coḷa practice, when they rest on two podigais above half-size niche pilasters (cf. Pl. 19b).

Fig. 1. Various types of base, pilaster and parapet in areas surrounding the temple.

Appendix 4

Classification of the Pāṇḍya, Muttaraiyar and Irukkuveḷ characteristics according to Soundara Rajan.

A R C H E T Y P E S		
I	II	III
<p>Ia. PĀṆḌYA (ca. A.D. 860) small stone aṣṭaparivārā square śikhara ? <i>examples at:</i> <i>Panangudi,</i> <i>Kaṭṭiyapatti,</i> <i>Viśālūr,</i> <i>Tiruppur,</i> <i>Enadi.</i></p>	<p>II. MUTTARAIYAR¹⁾ (ca. A.D. 860-90) small stone aṣṭaparivārā round/octagonal śikhara adhiṣṭhāna: upāna, jagatī, tripaṭṭa kumu- da, kaṇṭha, paṭṭikā, prati, vedi(vari). <i>examples at:</i> <i>Virālūr,</i> <i>Karmanūr,</i> <i>(Mela) Tiruppiṇḍurutti.</i></p>	<p>IIIa. MUTTARAIYAR (ca. A.D. 860) ekatala stone/brick - round/square śikhara adhiṣṭhāna: upāna, jagatī, vṛtta ka- da, vyālivari. <i>example at:</i> <i>Kiranūr.</i></p>
<p>Ib. MUTTARAIYAR (ca. A.D. 875) ekatala stone parivārā ? śikhara ? <i>examples at:</i> <i>Kilattanaiyam,</i> <i>Tiruchchātturai,</i> <i>Tiruchchennampūṇḍi.</i></p>		<p>IIIb. IRUKKUVEL (ca. A.D. 905) ekatala stone/brick aṣṭaparivārā round śikhara adhiṣṭhāna: upāna, padma, vṛtta ku- da, vyālivari, kaṇṭha, prati. praṇāla in upāna. <i>examples at:</i> <i>Lalgudi,</i> <i>Valikandapuram</i> <i>Kuhūr.</i></p>

1) Muttaraiyar is spelt Muttarayar by Soundara Rajan.

2) Coḷa temples built according to the Irukkuveḷ idiom, except for their round śikhara.

(for archetype IV see following page)

A R C H E T Y P E IV

IVa. MUTTARAIYAR
(ca. A.D. 845-60)

dvi/tritalas
stone
parivārā
round śikhara
adhiṣṭhāna: see II

examples at:
Nangavaram,
Nārttāmālai (Vijayālaya
Coḷeśvara).

IVd. IRUKKUVEL
(ca. A.D. 875)

tritala
stone
parivārā
square śikhara
adhiṣṭhāna: see IIb
praṇāla in kaṇṭha

examples at:
Koḍumbāḷūr (Mūvar Koyil),
Kilaiyūr (Agastyeśvara).

IVg. IRUKKUVEL-MUTTARAIYAR
(ca. A.D. 890)

dvitala
stone/brick
-
square śikhara
adhiṣṭhāna: see IIIa +
kaṇṭha, prati.

example at:
Śrīnivāsanallūr.

IVb. MUTTARAIYAR
(ca. A.D. 860-90)

dvitala
stone/brick
aṣṭaparivārā³⁾
round śikhara
adhiṣṭhāna: see II

examples at:
Śendalai,
Nemam,
Tiruvaiyārū.

IVe. IRUKKUVEL⁴⁾
(ca. A.D. 905)

dvitala
stone
-
round śikhara
adhiṣṭhāna: see IIb
-

example at:
Kilaiyūr (Coḷeśvara).

IVc. CĀLUKYA - PĀNDYA
(ca. A.D. 875-90)

dvitala
?
-
square śikhara
adhiṣṭhāna: see II

examples at:
Tillaisthānam,
Kumbakonam,
Tiruchchātturai,
Tiruchchennampāṇḍi.

IVf. IRUKKUVEL
(ca. A.D. 890-950)

dvitala
stone
aṣṭaparivārā
square śikhara
adhiṣṭhāna: see II
praṇāla in paṭṭikā

examples at:
Tirukkattālai,
Tiruchchendurai,
Aṇḍanallūr,
Koḍumbāḷūr (Mucukun-
deśvara).

3) Rafters instead of vyālis.







































































































4) Coḷa temple built according to the Irukkuvel
idiom, except for its round śikhara.

For a discussion of the iconographic character-
istics of the "Pāṇḍya", "Muttarayar" and "Iruk-
kuvel" style, see appendix 7, pp. 378-79.

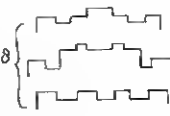


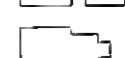












Appendix 5

Code-list of the variations in temple parts.

coordinates
W-E compu-
ter map.
(aspect =
map no.)

coordinates W-E compu- ter map. (aspect = map no.)	District (aspect 1.)	aspect 6 Kañṭha 1  Pal/Cāl	aspect 11 decoration kā... base 1  lotus, etc. 2  goose 3  pane
aspect 2	Temple Base	2 	aspect 12 kalaśa
UPĀNA/UPAPĪHA	1 	3  (Cāl) beneath all the kāls	1 
2  Pal.	2 	4  only under corner kāl	2 
3 	3 	5  as 4 but incidental	3 
4 	4 	6  Pān.	4  = 2 but not decorated
5 	5 	7  Cāl.	5 
ADHIṢṬHĀNA	ADHIṢṬHĀNA	8  Pān.	aspect 13 padmabara
Jagatī	1  Cāl.	aspect 7 pattikā	1 lotus decora
2  Cāl.	2 	1  Pal.	2 plain
3 	3 	2 	aspect 14 mālāsthāna
4 	4 	3 	1 
5 	5 	4  Pal.	2 
6 	6 	5 	3 
7 	7 	6  4 + 5	4 
8 	8 	7 	aspect 15 mālāsthāna var 2 + 3
9 	9 	8  3 + 5	1 
10 	10 	Temple Wall	2 
11 	11 	aspect 8 wall kañṭha see aspect 6	3 
12 	12 	aspect 9 vari	aspect 16 ka m a l a
13 	13 	1  continuous	1 
14 	14 	2  continuous	2 
15 	15 	3  = 1, only under devakōṣṭhas	3 
16 	16 	4  = 1 except under devakōṣṭhas	4 
17 	17 	5  = 2 except under devakōṣṭhas	5  4 + 1, etc.
18 	18 	KĀL	aspect 17 pa l a g a
19 	19 	cross-section	1 
20 	20 	1 	2 
21 	21 	2 	3 
22 	22 	3 	
23 	23 	4 	

aspect 18	kumbha	aspect 22	nāṭṭiya-pan vyali	aspect 27	kūdu- foliage
1				1	
2				2	
3				3	1 + 2
4	shape-less	1	Pal.	4	Cāl.
5	= 1 + decoration			5	
6	= 2 + "	2	Pal.	6	
7	= 3 + "				
aspect 19	podigai	aspect 23	Prastara LITTIRA	aspect 28	kūdu- inside
1	Pal. E. Cāl.	1	bhūtagaṇa	1	empty
2	Pal.	2	Lotus	2	Pal./Cāl.
3	Pal.	3	rafters	3	Bāṇas
4	Bāṇa Mutt.	4	goose	4	2 + 3
5	Bāṇa Mutt.	5	plain	5	Cāl.
6	Bāṇa Mutt.	6	Cāl.	6	Cāl.
7	Bāṇa Mutt.				
aspect 20	podigai decoration	aspect 24	KAPOTA profile + decoration	aspect 29	Makaratoraṇa makaras
1	Cāl.	1	Pal.	1	Pal.
2	Cāl.	2	Pal.	2	Pal.
3	Cāl.	3	Pal.	3	Pal.
4	Cāl.	4	= 2 plain	4	= 3 not decorated:
5	Cāl.	5	= 3 plain	5	= 2 not decorated:
6	Cāl.	6	Cāl.	6	Cāl.
7	Cāl.				
aspect 21	podigai decoration	aspect 25	kūdu- curve	aspect 30	kapota
1	Cāl.	1	Pal./Cāl.	1	above main niche
2	Cāl.	2	Bāṇa	2	" lateral niche
3	Cāl.	3	Cāl.	3	" window
4	Cāl.	4	Cāl.	4	makaratoraṇa adorning Kapota
5	Cāl.				
6	Cāl.				
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98	Cāl.				
99	Cāl.				
100	Cāl.				

Vimāna		aspect 39 (cont)			
aspect 33	no. of kāls		8 {  E. Cal.	aspect 49	1. cons...
	1. 4 kāls				Sculpture to...
	2. 6 "				1. Dasa...
	3. >6 "				2. all i...
aspect 34	no. of niches	aspect 40	Layout temple		3. here on...
	1. one/wall				4. all i...
	2. two/ "			aspect 50	1. iden...
	3. three/ "				1. one...
	4. three in elephant's back				2. two...
	5. five "			aspect 51	3. three...
	6. >three/wall				Deva...
aspect 35	no. of "mock" niches	aspect 41	+ mukha māṇḍapa		1. Br...
	see aspect 34		1. contemporaneous	aspect 52	2. o...
aspect 36	no. of tāla's	aspect 42	ardhamāṇḍapa with hāra		Deva...
	1. ekatāla		1. present	aspect 53	1. Dasa...
	2. dvitāla				2. o...
	3. tritāla	aspect 43	no. of niches in the ardhamāṇḍapa		Deva...
	4. caturtāla		see aspect 34		1. Vi...
	5. >four tālas	aspect 44	no. of cut-out niches in vimāna		2. Li...
aspect 37	Śikhara		1. two or three		3. Ar...
	1. ○ Vesara		2. four	aspect 54	4. o...
	2. □ Nāgara		3. >four		Deva in...
	3. C		4. only one		1. G...
	4. ○ Drāviḍa	aspect 45	no. of cut-out niches in ardhamāṇḍapa		2. Na...
	5.  Cal.		1. one	aspect 55	3. o...
	6. 		2. four		Deva in...
aspect 38	Śikhara: profile		3. one		1. Dura...
	1.  Cal.		4. two } with pilasters		2. Na...
	2.  Pal.		5. three } blind niche	aspect 56/59	3. o...
	3.  Pañ Bānas	aspect 46	False antarāla decoration		Deva ro...
aspect 39	Vimāna layout		1. with niche		niche E. a...
	1. 		2. with lozenges		resp. the...
	2. 	aspect 47	3. with window		S. and N. ...
	3. 		4. 1+3		in ardham...
	4. 		5. pañjara		1. Bhik...
	5. 	aspect 48	6. kumbhapañjara		2. Ar...
	6. 		full-fledged windows with grills		3. Ga...
	7. 		1. present Cal.		4. Co...
			grīvā platform		5. Ag...
			1. karna kuṭīs	aspect 60	6. o...
			2. sālās		7. Na...
					Pañjara
					its nar...
					1. above...
					2. under...
					3. at the...
					4. kumbh...

Appendix 6

The development of the makaratoraṇa and the kūdu.

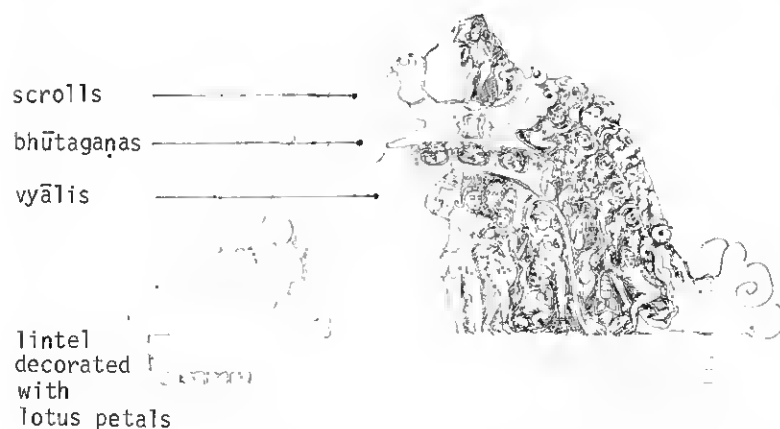
These ornamental aspects are not dealt with separately because in many cases they have been spoiled by plaster or have even disappeared completely. Mapping the distribution of the different shapes occurring between A.D. 850-1000 is therefore, unsuitable, for there are too many points missing in the distribution pattern of their variants which makes it impossible to deduce a trustworthy chronology of the monuments on which they occur. We shall, nevertheless, demonstrate that some conclusions can be drawn with regard to the development of both

1. The development of the makaratoraṇa during the Early Cola period.

The development of the makaratoraṇa can be traced on the walls of the Saptarṣi temples. These seven buildings form a group characterized by experimental design in all other respects.

The idea of crowning a devakoṣṭha with a makara is as old as the concept of a garland which seems to be held by two of these mythological animals. New is the manner in which the makaras are placed on the palagais above the half-pilasters. Another novel feature are the bhūtagaṇas or vyālis which—instead of flowers—seem to emerge from the mouths of the makaras (Fig. a).

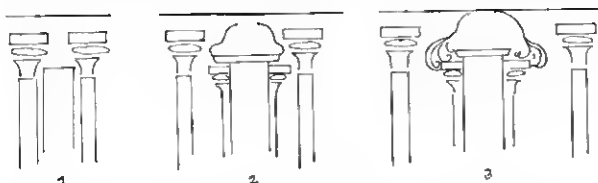
Fig. a. Position of the various motifs in an Early Cola makaratoraṇa.



The simple, or indented toraṇa of the Pallavas and the Cāḷukyas respectively was transformed into an arch swarming with animals and dwarfs. On the inside garlands were added the loops of which frame nāṭṭya-peṇs or musicians. The

if the arch shows antithetic makaras (cf. Figs. 6 and 9, p. 44, and Pls. 3, 6, and 9). The space framed by their curled upper lips is filled with a kind of medallion usually depicting a deity. All this remains between the normal wall pilasters and between the *uttira* and the lintel above the niche (Fig. b-3). If there is not enough room the *makaratoraṇa* is somehow squeezed into the available space (Fig. b-2) or altogether absent (Fig. b-1).













Fig. b. The position of the *makaratoraṇa* between pilasters and *uttira*.



This shortage of space can be noticed on the older temples, for instance at Tiruchchātturai, Tiruvaiyāṇū (Fig. c) and Nangavaram (Fig. d). Later shrines generally provide sufficient room for the *makaratoraṇa* (cf. Pls. 30, 31a and 49).

The architects of the Saptā Sthānas were in the first place trying to make the contours of the *torāṇa* co-ordinate with the space available between the beams and the pilasters (Fig. c). The shrine at Tillaisthānam does have a lintel above its niches, but there is no sign whatsoever of a *makaratoraṇa*—and rightly so, for the space where it ought to have been is too narrow (Pl. 24). The *torāṇa* is also absent on the *vimāna* walls of the shrine at Tiruppalam—again due to lack of space (Pl. 23). Here the half-size niche pilasters are missing as a result of which the full-size pilasters—and consequently their capitals—almost touch each other. However, there is some space available between the pilasters of the *ardhamandapa* walls. That between the *uttira* and the lintel on the other hand, is rather restricted. The result is a flat *makaratorāṇa* similar to that which the Pallava architects designed over the niches of the Olakaneśvara at Māmallapuram. The pilasters of the shrine at Tiruvēdikkudi—the third monument with three *devakoṣṭhas* in each *vimāna* wall—stand so far apart that there is almost too much space for a *makaratorāṇa* (Pl. 25). The tails of the makaras above Gaṇeśa sprawl over the lintel and the crescent between the makaras embraces the entire width of the niche. Under the antithetic makaras is a horizontal band from which a garland is suspended. Within its loops *śaṭṭya-paṇas* are depicted. The other *torāṇas* of this temple cannot be described as they are too damaged.

Fig. c. Various shapes of the makaratoraṇa and kūdu on the Sapta Sthānas.

name of village	makaratoraṇa	kūdu
Tillaisthānam	no makaratoraṇas	
Tiruppalaṇam		?
Tiruvēḍikkudī		
Tiruchchātturai		
Melatiruppūndurutti		
Tirukkandiyūr		
Tiruvaiyār (Paṇ.)		

The makaratoraṇas of the shrine at Tiruchchātturai are exceedingly ungainly, rectangular blocks which are practically jammed between the palagais (Pl. 26). There is no room at all for tails, so they are curled up on the lintel. Obviously, the sculptors did not finish these blocked-out shapes, and so the effect of arches was not achieved on this monument.

At Melatiruppūndurutti, the space for the makaratoraṇas is limited due to the short distance between the palagais and the kumbhas (Pl. 29b). However, there is sufficient room between the lintel and the uttira, thus creating a rather tall toraṇa instead of a wide one.

On the building at Tirukkandiyūr we find only the contours of the blocked-out makaratoraṇas (Pl. 28). Within these contours describing almost a semi-circle, another, undulating "contour" has been indicated. There is sufficient space between the uttira and the lintel and between the two palagais, so the makaras of the toraṇas in question do not have to fight for room on the lintel but exhibit their scrolling tails horizontally and vertically.

Finally, on the Pañcānādīśvara at Tiruvaiyār there is just enough space between the pilasters to accommodate a rectangular block which is beautifully carved with curling makara tails.

At first sight it seems illogical to consider the makaratoraṇas with

voluptuously dangling tails to be older than those of which the tails are squeezed between the kumbhas and the lintel. For, the latter concept would seem to indicate an unexpected lack of space, as if the architects had not decided in advance how exactly they were going to apply the makaratoraṇas. However, the makaras with tails sprawling over the lintel are already found on the oldest shrine, viz. at Tiruppalanam, albeit on the relatively wide ardhamāṇḍa-
pa walls only. At Tiruvēdikkudi, they appear also on the vimāna and the manner in which they are applied demonstrates that the sthāpati had apparently discovered that lack of space could be remedied by slightly widening the central bay. When, subsequently, the sthāpatis started to experiment with the layouts of the vimāna, for instance at Tiruchchātturai, new, unexpected problems arose, for now the kumbhas prevented the tails of the makaras from curling around the lintel. Since we have pointed out in our conclusions (pp. 324- 25) that the Early Coḷas were the first in South India to erect — almost exclusively — vimānas with central bays jutting out, it is not surprising that to begin with they did not know exactly how to bring the width of this part of the wall in harmony with its stylistic features. It looks as if the shrine at Tirukkaṇḍiyūr represents the last experiment, for here the central bay is wide enough to accommodate the complete design of a toraṇa with makaras spreading their tails over large parts of the walls.





















The space was fully utilized on the monuments built shortly after or even during the construction of the Sapta Sthānas, for instance at Tiruchchennampū-
r, Kumbakonam and Śrīnivāsanallūr (Fig. d). Here the outlines of the palagaḥ and kumbhas on either side of the makaratoraṇa appear to be the limits within which the contours of the toraṇa had to be shaped (Pls. 30 and 31a,d).

At Kilaiyūr another experiment can be observed. The architect of the Agastyaśvara extended the toraṇa onto the uttira by carving over the medallion a crown-like ornament on the uttira. Moreover, each medallion contains a different motif, viz. a rosette, a śiṃhamukha, or a nāṭṭiya-peṇ instead of the figure of Gaṇeśa which occupies that place at Tiruppalanam and Tirukkaṇḍiyūr.

On the walls of the Mūvar Koyil at Koḍumbāḷūr in the Muttaraiyar/Irukku-
[?] area, a similar search for alternatives can be noticed, albeit restricted to the inside of the toraṇa, as will be shown shortly (Fig. e).

From the above it can be concluded that the sthāpatis of the Sapta Sthā-
nas unintentionally left two types of makaratoraṇa for posterity. One with
dangling tails and one in which the tails of the makaras are curled up on the
lintel. This is clear from a case like the shrine at Puḷḷamaṅgai, where both
types were applied.

Fig. d. Various shapes of the makaratoraṇa and kūdu on monuments built along the Kāverī between A.D. 870-900

name of village	makaratoraṇa	kūdu
Tiruchchennampūṇḍi		
Kumbakonam (Nāg)		
Śrīnivāsanallūr		
Nemam		
Tirukkattavūr		
Lalgudi		
Tiruchchendurai		
Kilaiyūr (A)		
Nagavaram		
Pullamāṇḍi		












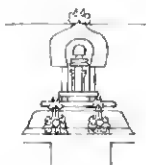
1) ardhamaṇḍapa as at Lalgudi; on nāṇa at Kilaiyūr, but remaining under uttira.

Turning our attention to the decoration inside the contours of these two types of toraṇa, it appears that four different solutions were tried out (Fig. c). At Tiruppalanam, Tiruvēdikkudi and Tiruchchātturai it is an almost closed circle within the crescent formed by a garland; at Tiruvaiyaru and again at Tiruvēdikkudi, a smaller crescent instead of a circle; at Melatiruppūndurutti a semi-circle in the crescent; and, finally, a completely different solution at Tirukkattavūr in which the loops of a garland hang from a horizontal beam and touch the toraṇa, thus absorbing all the available space.

At Tiruchchennampūṇḍi, Kumbakonam and Śrīnivāsanallūr (Fig. d) we find variations on these four basic types. At Lalgudi, Tiruchchendurai, Kilaiyūr-Koḍumbālūr (Fig. e), variations on one and the same building can be noticed. The makaratoraṇas at Tiruchchennampūṇḍi (Fig. d) resemble those on the ardhamaṇḍapa at Tiruvēdikkudi (Fig. c) except for the horizontal line above the toraṇa in the latter. At Kumbakonam (Fig. d) this peculiar horizontal accent



repeated, but the wide arch within the loops of the garland has shrunk into a rather small semi-circle.

Fig. e. Various shapes of the makaratoraṇa and kūdu in the Muttaraiyar-Irukkuvel tracts.

name of village	makaratorana	kūdu
Panangudi		
Kannanūr		
Tirukkattalai		
Kedumbālūr	  	 
Melakkadumbūr Nārttāmala		

At Śrīnivāsanallūr (Fig. d) the crescent was further reduced. The makaratoraṇas at Nemam (Fig. d) can best be compared with those at Melatiruppūndurutti (Fig. c). At Laigudi (Fig. d) experiments were tried out on both the crescent and the garland. In one instance the "horizontal" line above a large crescent is not completely straight; above the Ardhanārī niche the loops of the garland are hanging in three large curves, partly covering a closed circle.

Fig. f. Various shapes of the makaratoraṇa and kūdu on monuments built in the Kāverī delta during the first half of the 10th century.

name of village	makaratorana	kūdu
Tiruppurambiyam		?
Tiruvādūturai		?

The sculptors of the monuments at Tiruppurambiyam and Tiruvādūturai (Fig. f) preferred a relatively large space under the garlands in which they depicted the deities. This preference seems to have been carried on into the subsequent phase, next to the tiny, almost closed circle (Fig. g).

With the building activities of Śembyan Mahādevī some alterations in the shape of the makaratoraṇa seem to have been introduced (Fig.g). For, apart from the usual type, we occasionally find a simplified version of the complicated garland-cum-bhūtagaṇa friezes. This second variant consists basically of three simple scrolls on either side of the semi-circle. However, this is not a new type of ornamentation, for it occurs again and again on the kapotas of earlier temples, framing kūdus (cf. kūdus at Puḷḷamaṅgai, Fig. d).

In view of the above it is obvious that the shape of the makaratoraṇa displaying so many different variations is not a particularly suitable criterion for dating temples. In the first place monuments built after the Sapta Stambam all have sufficient space between the pilasters and between the uttira and lintel. Nevertheless, they display either the short-tailed or the long-tailed makaras, which shows that they were merely selected on the basis of personal preference and not according to the availability of space. Secondly, the logical centre of the toraṇa can be either a crescent or a semi-circle or a tiny, almost closed circle, but a preference for one of these possibilities cannot be established. Those koyils which have toraṇas with curls instead of makaras can, however, be attributed to the days of Śembyan Mahādevī or later (cf. Fig. 41a-c, p. 211).

Fig. g. Various shapes of the makaratoraṇa and the kūdu on monuments built in the Kāverī delta during the second half of the 10th century.

name of village	makaratorana	kūdu	
Tirumiyachchūr			
Ticunagaraiyūr Tirukkodikkaval Tiruvallanqūy Xs			
Puñjai			
Tiruvankūḍu		?	

2. The development of the kūdu during the Early Coḷa period.

The kūdu or gavākṣa including its composition, is a purely decorative ornament a separate topic.¹⁾ The observed variations illustrated in our drawings, seem to indicate that in the course of a century the kūdu gradually changed from a horseshoe-shaped ornament into a closed circle just above the edge of the

kapota. The garland motifs around the horseshoe or circle differ already on the earliest monuments. The variations displayed at Tillaisthānam and Tirukkaṇḍiyūr (Fig. c) became the most popular in Early Coḷa architecture. The space inside the kūdu frame may contain smiling faces, animals, rosettes or scenes representing the worship of a liṅga, or may be left empty. On the earliest monuments the lower end of these "panels" does not coincide with the edge of the kapota, but is placed slightly higher. However, at Tirukkaṇḍiyūr and Tiruvaiyāṇḍi (Fig. c) it is in line with the edge of the kapota. At Tiruchchennampūṇḍi (Fig. d) the border of circles running along the kapota is not interrupted by the kūdus. A century later this idea re-appeared at Tirumiyachchūr (Fig. g), but now the complete kūdu is moved up and carved above the border of circles. This upward move of the kūdu continues in the following phases, i.e. the Middle and even Late Coḷa periods, for the originally wide open horseshoe is then reduced to a tiny dot somewhere halfway up the kapota and consists of scrolls around an invisible point (cf. the kūdus on the Melakkadambūr at Nārttāmalai, Fig. e).

Independent of these changes in shape and contents the Early Coḷa kūdu is always crowned by a siṃhamukha — usually a separate block placed on the kapota. This explains why these heads are so often missing. In the Muttaraiyar tract, on the other hand, they are part of the kapota-blocks and carved into a rosette (cf. Panangudi and Koḍumbāḷūr, Fig. e).

In view of the fact that the Coḷeśvara at Kilaiyūr (Fig. d) displays the rosette, whereas the Agastyeśvara in the same compound does not, because the blocks above the kūdus are missing, we have serious doubts whether the rosette is a purely Muttaraiyar-Irukkuveḷ(-Pāṇḍya) contribution to Early Coḷa architecture and, consequently, whether the monuments exhibiting this motif were built by the Muttaraiyars, the Irukkuveḷs or even the Pāṇḍyas, as is assumed by several authors (appendix 4). On the other hand, we believe that in the very first years of the Early Coḷa phase, the rosette and the siṃhamukha were applied alternatively. For, two shrines east of the Sapta Sthānas display the rosette on a short neck (Tirukkaḷavūr) or the siṃhamukha on a long neck (Puḷḷamaṅgai, Fig. d), while two shrines west of the Sapta Sthānas reflect the same duality, this time in the reverse, the rosette on a long neck (Nangavaram) and the siṃhamukha on a short neck (Tiruchchennampūṇḍi, Fig. d).

That the history of the kūdu is complicated and cannot be explained by assuming regional norms also becomes obvious, when comparing the kūdus on a few so-called Muttaraiyar, Irukkuveḷ and Pāṇḍya monuments. At Kaḷugumalai (Chandra 1975, Pl. 127) the siṃhamukha as well as the shovel appear above the kūdu, both rising well above the edge of the kapota. At Tiruvāḷiśvaram (Chandra 1975,

Pl. 129) the kūḍus remain under the kapota, while the siṃhamukha and shovel have turned into rosettes. At Tiruppattūr (Chandra 1975, Pl. 132) we find blocks in the shape of a siṃhamukha above the kūḍus which in addition are almost closed.

From this short excursion into an unexplored area, viz. the development of the South Indian kūḍu, it is clear that no general statements can be made about the chronology of its various shapes. It may be true that the Early Coḷa kūḍu started out from a wide open horseshoe motif inherited from the Pāṇḍavas and gradually turned into a tiny circle. However, we doubt whether this process ran parallel to that in the surrounding areas such as the Pāṇḍya country. If so, then the shrine at Kannanūr — attributed to the 9th century (Chandra 1975, Pl. 145) — with its small circles well above the lower fascia of the kapota was built later. The same applies to the Pāṇḍya monuments at Enadi and Tiruvālīśvaram (Chandra 1975, Pls. 129 and 137, p. 300).

Apart from the shape and position of the inner circle in this motif, many aspects could be studied, for instance, whether the top decoration is part of the kapota block or a loose element; whether the bottom of the kūḍu coincides with the bottom of the kapota; whether the lower edge of the space inside the kūḍu coincides with the bottom of the kapota (Fig. c); whether the border of the circle is interrupted by the kūḍu; what sort of foliage decorated the horseshoe-shape and finally, what its inner circle contained. As to the question of the siṃhamukha and the rosette, we are afraid that these motifs are of little use in tracing the development of the kūḍu, since they are the first details to disappear.

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- 1) Professor van Lohuizen drew my attention to the curious fact that the term for a small round window in Sanskrit is "gavākṣa" or "cow's eye", while such a window is called "bull's eye" in English, and "oeuil de boeuf" in French.

Appendix 7

Temples belonging to the Sapta Sthāna style; their characteristics and dates as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

no.	Name of village	characteristics		Dating ¹⁾	according to		References ²⁾
		loc.	cont. layout. ³⁾		Br	H	
1.	Tiruppalanam ⁴⁾	1-A-1	II-5-b/3-A-3	872	890-	872	BI,153;Br 54-55
2.	Tillaisthānam ⁴⁾	1-A-1	II-3-b/3-A-0	878	878-84	878	BI,160-64;Br 56-57
3.	Tiruvēdikkudi ⁴⁾	1-A-1	II-4-b/3-A-1	889	889	882-83	BI,156-57;Br 55-56
4.	Tiruchchātturai ⁴⁾	1-A-1	II-2-b/1-A-0	883	883	883	BI,157-60;Br 59
5.	Tiruvaiyārū(P) ⁵⁾	1-A-1	II-2-b/1-A-0	876	890	885	BI,149-52;Br57-58
6.	Tirukkaṇḍiyūr ⁴⁾	1-A-1	II-2-b/1-A-1	876	918	885	BI,146-49;Br 58
7.	Melatiruppūndu-rutti ⁴⁾	1-A-1	I-2-a/1-A-0	881	940-69	885	BI, 164-66;Br 59
8.	Kumbakonam	1-A-1	II-3-b/3-A-1	885	910	886	BI,133-36;Br68-69
9.	Tiruchchennam-pūṇḍi	1-A-1	II-4-b/3-A-1	-	920	885-86	Br 70-71
10.	Śrīnivāsanallūr	1-A-0	II-3-b/3-A-0	894	927	895	BI,100-03;Br 74
11.	Lalgudi	1-A-1	I-2-a/1-A-0	898	897	- 898	BI,97-99;Br 53
12a.	Kilaiyūr(A)	1-A-0	II-2-b/1-A-0	884	892	892	BI, 107-11;Br50-52
12b.	Kilaiyūr(C)	1-A-0	II-2-b/1-A-0	884	892	892	
13.	Aṇḍanallūr	1-A-0	II-4-b/1-A-0	918	918	895?	BII,15-17;Br 71-72
14.	Tiruchchendurai	1-A-0	II-2-b/1-A-0	893	909	895?	BI, 93-97;Br 52-53

1) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12-15.

2) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; Br = Barrett 1974.

3) Loc.cont = locational context, viz. a region dominated by monuments with a specific number of niches in the vimāna(I-), an ardhamandapa directly attached to it(-A-) and a specific number of niches in the ardhamandapa (varying from 0 to 3). These aspects will be discussed in the last paragraphs of chapter three.

4) The Sapta Sthānas are seven shrines connected by means of a story of strictly local origin, as might be clear from the following (Balasubrahmanyam 1966, p.152): "There was a Brahman called *Trisuli*; when a child, in sheer wantonness, he is said to have put a stone, instead of food, into the begging bowl of a sage. The boy grew up and was married in due course but he had no issue. Thereupon, *Trisuli* did severe penance. The sage, who had been insulted in his childhood, appeared in a dream before *Trisuli*, and told him that it was the result of his misdeed in his childhood; but that, in view of his repentance, he would be rewarded with a child which he would find enclosed in a box. This child had a bull's face. He was an ardent devotee of Siva and was crowned as the head of the *Siva-Ganas*. He was married at Tirumalavadi, on the northern bank of the Kollidam (Coleroon) [three miles away from Tiruvaiyārū] where this story is situated. After the wedding, he was taken in procession round seven temples, in-

cluding Tiruvaiyaru as the hub of this group. The other centres are Tiruvannam, Tiruchchorrutturai [i.e. Tiruchchātturai], Tiruvēdigudi [i.e. Tiruvēdi], Tirukkandiyur, Tiruppundurutti [i.e. Melatiruppūndurutti] and Tillaisthanam. Annual celebration in memory of this event is known as the *Sapta Sthāna* festival of Tiruvaiyaru, held in the month of *Chitrai* (April) which attracts a crowd from the surrounding villages."

- 5) P=Pañcanādīśvara, see also note 4).
- 6) In fact, a double typology can be applied to the shrine at Śrīnivāsanallūr: 3-A-0 or 1-?-1, a problem which will be discussed on p. 158.
- 7) A double typology can be applied to the monument in this village: 1-A-0 or 1-B-0, a problem dealt with on p. 158.
- 8) A=Agastyeśvara; C=Coḷeśvara. Both monuments are situated in the same courtyard.

Other characteristics not listed in this and the four following appendices are enumerated in appendices 12-15. We decided not include information with regard to iconographical data, except in the case of the *Sapta Sthānas* and the temple built during the same period as these buildings seem to illustrate the experimental stage of Śaiva iconography in the Coḷamaṇḍalam at the end of the 9th century.

Assuming that the icons listed on p. 375 are contemporary with the buildings in which they are placed — a situation which was taken for granted by all authors referred to — then the following remarks can be made with regard to the supposedly experimental stage in Early Coḷa Śaiva iconography.

1. Niches in the vimāna could accommodate any representation of a manifestation of Śiva. In this connection the icons identified as Brahmā should be reconsidered, for Śiva in his Maheśvara aspect can be depicted with three (four) heads (cf. Elephanta, Gopinatha Rao, Vol. II, pp. 382-85).
2. There is no regional preference for whatever combination of vimāna devatās "Irukkuve!" and "Muttaraiyar" monuments — as listed in appendix 4 — do not form separate clusters when classified according to the devatās on their first talas.
3. Representations of Viṣṇu and Brahmā are absent in the earliest koyils of the *Sapta Sthānas*. Viṣṇu appears in combination with Śiva as a Hariharasculpture later on. Vaiṣṇava iconography is represented, though, in tiny panels under the vari and kaṇṭha at for instance Puḷḷamaṅgai. This configuration can be interpreted as a temporary suppression of the Viṣṇu cult which used to be illustrated by means of huge panels covering the walls of caves and niches.

- v. The cult of deities of the second echelon such as Durgā and Gaṇeśa shows an obvious, regional preference. For, in the old Muttaraiyar and in the Iruckuvel areas these deities were worshipped in small, separate chapels - making niches in the walls of an ardhamandapa redundant, whereas in the apex of the delta in due course the Pallava/Bāṇa solution was preferred, i.e. niches in the walls of the ardhamandapa in order to accommodate icons of Durgā and Gaṇeśa (see for instance Takkoḷam, Tiruttāni, appendix 15, no. 10, Barret 1974, pls.6-8).

Iconographic characteristics of the Sapta Sthānas and related shrines.

Name of village	vimāna niches			ardhamandapa niches	
	north	west/east	south	north	south
1.Tiruppālanam	[S]	[S]	[S]	[D]	[G]
2.Tillaisthānam				-	-
4.Tiruchchātturai				-	-
3.Tiruvēdikudi	[Br]	[Ar]	[Dm]	D?	?
5.Tiruvaiyārū				-	-
8.Kumbakonam				D?	?
9.T.chennampūṇḍi				?	?
(15) Tirukkaḷavūr (app.9,no.18)				D	G
6.Tirukkaṇḍiyūr	? Br	[Lin]	Dm	?	?
(16) Pullamaṅgai (app.8,no.2)				D	G
7.M.T.pūndurutti	[Bh]	Ar	[VD]	-	-
11.Lalgudi				-	-
(17) Koḍumbāḷūr (app.14,no.10) central vimāna		[Gd]		-	-
10.ŚrTnivāsan- allūr	Br	[Hh]	Dm	?	?
(18) Nemam(app.9, no.24)				-	-
(19) Tiruverumbūr (app.8,no.1)				(D)	(G)
14.T.chendurai	?	? Hh	VD	[VV]	-
(20) Nangavaram (app.9,no.22)		[V]		-	-
12a-b Kilaiyūr	Br	[K]	S	-	-
(21) Tirukkattalai		V	[Tp]	-	-

For references see pp. 376-77. numbers refer to temples listed on pp. 373,378. the shrine at Aṇḍanallūr(no.13) was omitted from this list since we do not know the contents of its niches.

At Śrīnivāsanallūr the western niche is empty, but its makaratoraṇa contains Narasiṃha sculpture like that at Tiruveṇṇambūr. At the latter site a Harihara placed in the western niche. At Nemam the Viṣṇu figure does not belong to Barrett's "first phase" and might be a replacement of a Harihara figure. This could have taken place when niches were added to the ardhamandapa (ca. A.D. 9th) and Gaṇeśa as well as Durgā were installed.

☐ First appearance of Śiva, Viṣṇu, Brahmā, Durgā or Gaṇeśa;

☐ first appearance of other manifestations of Śiva

S = Śiva; D = Durgā; G = Gaṇeśa; Br = Brahmā; Ar = Ardhanārī;
Dm = Dakṣiṇāmūrti; Lin = Liṅgodbhava; Bh = Bhikṣāṭaṇa; VD = Viṇādhara
Dakṣiṇāmūrti; Gd = Gaṅgādharamūrti; Hh = Harihara; VV = Vṛṣavāhana;
V = Viṣṇu; K = Kārttikeya; Tp = Tripurāntaka.

References to iconographical characteristics. Numbers refer to temples listed on p. 375.

1. Balasubrahmanyam 1966, pls. 79a-c.
2. Dhaky 1971, p. 273, pls. 420-21, ca. A.D. 845; de Lippe, p. 171, pl. 222, A.D. 878; Soundara Rajan 1975, p. 290. According to him the images represent Dakṣiṇāmūrti, Brahmā and Viṣṇu.
3. Dhaky 1971, pls. 422-23, before A.D. 864.
4. Dhaky 1971, pls. 424-25, ca. A.D. 881; de Lippe, p. 72, pls. 224-25, ca. 883.
5. Soundara Rajan 1975, p. 291.
6. Balasubrahmanyam 1966, pls. 77b-c.
7. Dhaky 1971, pl. 427, ca. A.D. 882; Soundara Rajan 1975, p. 291.
8. Balasubrahmanyam 1966, pls. 69a-b; Barrett 1974, pl. 12; Dhaky 1971, p. 273, ca. A.D. 886; de Lippe, p. 173, pl. 230, ca. A.D. 886; Soundara Rajan 1975, p. 268. He also includes Bhikṣāṭaṇa which is placed in a lateral niche of the vimāna. This figure might originally have occupied the southern ardhamandapa niche.
9. Balasubrahmanyam 1966, pl. 2-b; Dhaky 1971, p. 276, pl. 427, ca. A.D. 886; Soundara Rajan 1975, p. 275.
10. Balasubrahmanyam 1966, pl. 43, which shows a Dakṣiṇāmūrti(?) in the northern wall of the ardhamandapa, probably belonging to the second tala (pl. 48). Dhaky 1971, p. 277, ca. A.D. 895; de Lippe, pp. 173-74, pl. 246, ca. A.D. 895. Note the precise measurement of the image shown in pl. 246 in relation to the niche as compared with that of other figures (pls. 243-45); Soundara Rajan 1975, p. 292.
11. De Lippe, p. 172, pls. 226-27, ca. A.D. 897; Soundara Rajan 1975, p. 292.
12. Balasubrahmanyam 1966, pls. 57-60; Barrett 1974, pl. 2; Soundara Rajan 1975, p. 274. He includes images of Durgā and Gaṇeśa. This is surprising for the ardhamandapa does not have niches.
14. Soundara Rajan 1975, p. 276 includes a Brahmā figure in his description of this temple, whereas Balasubrahmanyam's publication (1966, pl. 40b) states that the northern niche is empty.

8. Balasubrahmanyam 1971, pls. 51, 53-55.

9. Chaky 1961, p. 281, pl. 438, ca. A.D. 918; de Lippe, p. 173, pls. 237-40, ca. A.D. 910-920.

10. Chaky 1971, p. 279 note 58, ca. A.D. 878-886; de Lippe, p. 167, pls. 209 and 211; Soundara Rajan 1975, p. 272 describes the Bhikṣāṭana figure wrongly as a Brahmā.

The iconographical layout of the central and southern shrines at Koḍumbālūr is as follows (according to de Lippe):

	central shrine			souther shrine			
	north	east	south west	north	east	south	west
grīvā	Śiva	Indra	Dak. Ūmā	Gaṅgadh.	Tripurān taka	Gajāsura	?
tala 1	Śiva	Śiva/Par.	? ?	Śiva/Par.	Kalarī	Naṭarāja	Harihara
tala 2	Bhik.	Ardhanārī	? ?	Bhik.	Gaṅgadh.	Vīṇādhara	?

Bhik.=Bhikṣāṭana; Par.=Parvatī; Gaṅgadh.=Gaṅgadhara; Gajāsura=Gajāsurasamhara.

11. Soundara Rajan 1975, p. 286.

12. Balasubrahmanyam 1966, pls. 66-67.

13. Balasubrahmanyam 1971, pl.22.

14. Balasubrahmanyam 1966, pls.36b and 38a-b). The figure shown in pl. 36b does not belong to the same stylistic "race" as the parivāradevatās in the same compound (pls. 38a-b); Soundara Rajan 1975, p. 278. According to him the following iconographical layout is displayed on the temple in this village:

	west	north	south	east
grīvā	Lakṣmī-Varāha	Dakṣiṇāmūrti	Dakṣiṇāmūrti	Ūmā Sahita
tala 1	seated Viṣṇu	seated Brahmā	Bhikṣāṭana	-
tala 2	standing Viṣṇu	standing Brahmā	Tripurāntaka	-

Appendix 8

Characteristics and dates of the vimānas with pañjaras as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

no.	Name of village	characteristics			Dating ¹⁾			References
		pañ.	niches	vimāna 3)	B	Br	H	
1.	Tiruverumbūr	Ia	0	I-1-a	875-89	952	886-89	BI,114-23;B
2.	Puḷḷamaṅgai	Ia/Ia	1	III-4-b	910-20	910-20	900-10	BII,46-49;B
3.	Tiruppurambyam	Ia/Ib	1	II-3-b	871-907	975-85	910-25	BI,184-86;B
4.	Tiruvādūtūrai	Ia/BN	1	I-2-a	910-45	945	925-32	BII,50-54;B
5.	Karandai	Ib/Ib	1	I-2-a	907-55	979	932-35	BII,183-85;B
6.	Tirumayānam	I Ib	1	I-2-a	872	985	935-40	BI,186-88;B
7.	Kōyildēvarāyan- pēṭṭai	I Ib	1	(II)-2-a	887	978	940	BI,241;Br
8.	Tudaiyūr	I Ia	1	I-2-a	871-07	969-85	990-00	BII,218-19;B
9.	Kuttālam	Ib	3	II-2-b	969-85	991	? -992	BII,176-78;B
10.	Tiruvaiyāṇū(TK) ⁴⁾	I Ib	3	II-4-b	1015-44	-	? -1015	BIII,272-71
11.	Manampādi	I Ib	3	II-4-b	-	-	985-	SII 92-98;B
12.	Kṭappaḷuvūr	I Ib	0	I-2-a	919	984	984	BII,31-39;B
13.	Goburapatti	Ia	1	II-4-b	981	-	990-00	BIII,380-81
14.	Tirumaṅgalam	I Ib	1	II-3-b	990	-	990-00	BIII,128-31
15.	Tiṇḍivanam	I Ib	1	II-3-b	956-60	-	960	BII,144
16a.	Oadapuram(S)	Ib	1	II-4-b	1006	1006	1000-06	BIII,159-61
	b.Oadapuram(V) ⁵⁾	Ib	1	III-4-b	1006	1006	1000-06	idem
17.	Tennēri	I Ib	3	II-4-b	995	-	995	BIII,405-6

1) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12-15.

2) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; BIII = Balasubrahmanyam 1975; Br = Barrett 1974; SII South Indian Inscriptions.

3) pañ. = type of pañjara; niches = number of niches in ardhamandapa; () = height of the present building probably not original, between brackets the present height of the vimāna; Ia/Ia type of pañj. in vim. and ardham.; BN = blind

4) TK = Ten Kailāsa in the compound of the Pañcanāḍīśvara.

5) S = Śiva Koyil; V = Viṣṇu Perumāl.

On the back cover of Barrett's second book (1974) the shrine at Kamarasavalli is shown, which we do not include in our list because it does not belong to the Early Coḷa monuments despite the presence of pañjaras on the walls of its vimāna. However, these pañjaras do not belong to our classification, for they consist of two pilasters supporting a kapota on which a śālā stands. This type occurs for the first time on temples built in the days of Kulottuṅga I (A.D. 1070-1120).

Appendix 9

Characteristics and dates of vimānas without pañjaras built in the pañjara region or during the pañjara phase as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

No. on map 6A	Name of village	characteristics 1)		Dating ²⁾ according to			References ³⁾
		layout	vimāna	B.	8r	H	
18.	Tirukkaḷuvūr	1-A-1	I-2-a	B70-907	-	887-88	BII,54-56
19.	Tirukkalittattai	1-A-1	I-1-a	907-29	-	960	BII,5B-60
20.	Gōvīndaputtūr ⁴⁾	1-B-1	I-2-a	929-79	982	979	8II,39-40;163 Br95-96
21.	Tiruppalturai	1-A-1	I-1-a	9th C.	925	960	8I,126-28; 8r.73-74
22.	Nangavaram	1-A-0	II-2-b	910-20	910-20	895-910	BII,41-42; Br 72
23a	Aḷḷūr(Paṇc.)	5)	II-2-b	913	?- 910	895-910	8II,11-12;
23b	Aḷḷūr(Paśu.)		(I)-2-b	924	920		8r 72-73 8II,12-15,
24.	Nemam	1-A-0	II-2-b	895	870-940	884-95	8I,142-44; 8r 62
25.	Tirukkāṭṭup- pallī	0-A-0	I-2-a	870-00	870-940	-870	BI,140-42; 8r 63
26.	Kōviladi	1-A-1	I-1-a	952	952	renov. ⁶⁾	8I,145 8r 85
27.	Puñjai	1-8-1	I-1-a	964-68	940	990-1007	8II,151-56 8r 81-83
28.	Uḍaiyārgudi	1-8-1	(I)-2-b	940	965	940	8II,70-73 8r 107-08
29.	Uyyakkōṇḍān Tirumalai	1-A-1	(II)-1-a	917	-	979-95	BII,23

- 1) Specific number of niches in vimāna(0 or 1), ardhamandapa connected directly to the vimāna(A) or not(B), number of niches in the ardhamandapa (0 or 1), counted per wall. () = height of the present building probably not original; between brackets the present height of the vimāna.
- 2) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12 — 15.
- 3) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; Br = Barrett 1974.
- 4) Cf. the monument at Gandaradittam 1-B-1/I-2-a dated ca. A.D. 984 and that at Tirukkuhukavūr with the same layout dated ca. A.D. 982; both koyils are located outside the pañjara-region.
- 5) Paṇc. = Pañcanādīśvara; Paśu. = Paśupatiśvara.
- 6) renov. = renovated, but not in the Early Coḷa period.

Appendix 10

Temples belonging to the 1-B-1 category; the layout of their vimāna and dates as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

no.	Name of village (and district)	vimāna	Dating B	1) according to Br H		References 2)
in Tañjāvūr:						
1.	Tiruppurambyam	II-3-b	871-907	975-85	910-25	appendix 8, no. 1
2.	Tiruvādūtūrai	1-2-a	910-45	945	925-32	appendix 8, no. 2
3.	Karandai	1-2-a	907-55	979	932-35	appendix 8, no. 3
4.	Uḍaiyārgudi ³⁾	(I)-2-b	940	965	940	appendix 9, no. 1
5.	Tiruvilakkudi	(II)-2-a	969-85	970	959	81, 167-70; Br 99-100
6.	Gōvīndaputtūr	I-2-a	927-79	982	979	appendix 9, no. 2
7.	Gandaradittam	?-2-a	969-85	983	983	8II, 165; Br 96-97
8.	Tiruvaiyārū(K) ⁴⁾	II-2-b	- 1006	-	985-1015	8III, 89-92
9.	Tirukkuhukavūr	I-2-a	982	982	982	8II, 186; Br 95
10.	Puñjai	I-1-a	964-68	940	990-1007	appendix 9, no. 3
11.	Tirukkaḍaiyūr	II-3-b	985-98	-	985-1015	8III, 104-06
in South Arcot:						
12.	Kṛṭṭūr	II-2-b	907-55	959	959	8II, 85-87; 8r87-88
13.	Tiruvāndārkōyil	(III)-2-b	922	990	960 - ?	8II, 83-84; 8r115-16
14.	Bāhūr	I-1-a	965	965	965	8II, 236; Br 86-87
15.	Jambai	(II)-2-a	985-00	-	960-00	8II, 250-51
16a.	Dadapuram(S)	II-4-b	1006	1006	1000-06	appendix 8, no. 4
b.	Dadapuram(V)	III-4-b	1006	1006	1000-06	a 200
in Chingleput:						
17.	Paramēśvaramaṅga- lam	III-1-b	955-85	-	969-85	8II, 207-08

1) The years should be interpreted as approximate dates, for they are based on the earliest inscription discovered on a shrine. For our final conclusions with regard to the date of a monument we refer to our appendices 12 - 15.

2) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; BIII = Balasubrahmanyam 1975; Br = Barrett 1974.

3) Uḍaiyārgudi is located in the Tiruchirappalli District but connected to the Kāverī delta by means of a channel and belongs therefore — hydrogeographically — to the Tañjāvūr District.

4) UK = Uttara Kailāsa in the compound of the Pañcanāḍīśvara.

N.B. Although the undated koyil at Colapuram near Kumbakonam was built during the reign of Rājendra I (appendix 11, no. 32), it is not included in the list because the central part of its ardhamandapa walls juts out.

Appendix 11

Temples belonging to the B-3 category built in the Kāverī delta between A.O. 969-85; temples built in the Kāverī area between A.D. 985-1044; their characteristics and dates as suggested by Balasubrahmanyam(B), Barrett(Br) and our definite proposals(H).

no.	Name of village	characteristics vimāna ardhamaṇ.	Dating according to			References ¹⁾
			B	Br	H	
1.	Kōṇērīrājapuram	I-2-a/1-B-3	969-72	969-72	969	BII, 165-72; Br, 90-91
2.	Kṛīṇūr	I-2-a/1-B-3	-	-	969-80	SII 270-76/1950-51
3.	Tirunāgēśvaram	I-2-a/1-B-3	969-85	969-85	969-80	BI, 176-77; Br, 100-01
4.	Ādūturai	I-2-a/1-B-3	985	985	969-80	BII, 173-74; Br, 98
5.	Tiruvālāṅguḷi (Kṣ)	I-2-a/1-B-3	1010	-	969-80	BIII, 92-94
6.	Tirunāraiūr	I-2-a/1-B-3	969-85	986	969-80	BII, 178-81; Br, 109-10
7.	Tiruppugalūr	I-2-a/1-B-3	969-85	-	969-80	BII, 246
8.	Tiruvirāmeśvaram	I-2-a/1-B-3	985-97	-	969-80	BIII, 103
9.	Tirukkodikkaḷ	II-2-b/1-B-3	980	980	980	BII, 174-76; Br, 93
10.	Vriḍdhāchalam	II-2-b/1-B-3	981	981	981	BI, 197-200; Br, 93-94
11.	Kuhūr	II-4-b/1-B-3	970	970	981-85	BI, 192-93; Br, 100-01
12.	Ānangūr	II-4-b/1-B-3	979	979	981-85	BI, 185-86; Br, 92-93
13.	Tiruvīdaimarudūr	II-4-b/3-B-3	973	973	981-85	BI, 173-76; Br, 92
14.	Sembyan Mahādevī	II-4-b/3-B-3	981	980-81	981-85	BII, 181-83; Br, 94-95
15.	Tiruvārūr (Acales)	III-5-c/3-A-3	969-91	991	985	BI, 195-97; Br, 110-11
16.	Tiruchcheṅgāt- taṅguḷi	II-4-b/1-B-3BN	988	-	981-85	BIII, 96-102
17.	Nāgapattinam	II-2-b/3-A-3	985-1010	-	985	BIII, 109-115
18.	Pateesvaram	II-2-b/1-B-3KP	-	-	970-80	-
19.	Kuttālam	II-2-b/1-B-3P	969-85	991	986	App. 8, no. 9
20.	Tiruvālāṅguḷi (Kap)	II-4-b/1-B-3KP	985-02	-	988-90	BIII, 92-94
21.	Manampādi	II-4-b/1-B-3P	-	-	988-90	App. 8, no. 11
22.	Tirukkaḍaiyūr	II-3-b/1-B-1BN/P	985-98	-	986-90	App. 10, no. 11
23.	Tiruvaiyārū (TK)	II-4-b/1-A-3P	1015-44	-	1000-10	App. 8, no. 10
24.	Tiruvaiyārū (UK)	II-2-b/1-B-1BN	- 1006	-	1000-06	App. 10, no. 8
25.	Puñjai	I-1-a/1-B-1/2	964-68	940	990-00	App. 9, no. 27
26.	Tirumiyachchūr	I-E-a/1-B-3	969-85	-	990-00	BII, 190-92
27.	Tiruveṅkādū	I-2-a/1-A-0	985-991	-	1000	BI, 188-91
28.	Tirukkōḷlikāḍu	I-2-a/1-A-1	-	-	renovat.	SII 126-40/1935-36
29.	Vēdāranyam	I-1-a/0-A-0	renovat.	-	1007-	BI, 183-84
30.	Rāmanātha Kōyil	I-1-a/1-B-3KP	1019	-	1019	BIII, 269-72
31.	Mahārājapuram	I-2-a/1-B-3KP	-	-	1012-44	-
32.	Coḷapuram	II-4-b/1-B-1KP	-	-	1012-44	-
33.	Gaṅgaikoṇḍac.	II-4-b/3-B-3KP	1020-44	-	1012-44	BIII, 252-53
34.	Tirumalavāḍi	II-2-b/1-A-3BN	1013-26	-	1013-26	BIII, 267-69
35.	Tiruvārūr (Wan.)	I-1-a/1-A-0	-	-	1012-44	-
36.	Tiruvārūr (Tyā)	?-5-c/1-A-1	1030	-	1030	BIII, 276-79
37.	Melappaḷuvūr	I-2-a/1-A-1	1015	-	1015	Sastri 1, 187
Along the north bank of the undivided Kāverī: ¹²⁾						
38.	Tirumāṅgālam	II-3-b/1-A-1P	990	-	990-00	App. 8, no. 14
39.	Goburapatti	II-4-b/1-A-1P	981	-	990-00	App. 8, no. 13
40.	Tudaiyūr	I-2-a/1-A-1P	- 907	954	990-00	App. 8, no. 8

1) BI = Balasubrahmanyam 1966; BII = Balasubrahmanyam 1971; BIII = Balasubrahmanyam 1975; Br = Barrett 1974; Sastri I = Sastri 1955; SII = South Indian Inscriptions; App. = our appendix.

2) Ks = Kṣetrapāladeva in the compound of the Śrī Kapardīśvara (no. 5).
BN = blind niche; KP = kumbhapañjara; P = pañjara; E = elephant's back.

notes to appendix 11(cont.).

- 3) Vriddhāchalam is a village in South Arcot, but its temple belongs in every respect to the delta idiom and was built under the patronage of Śaṃbyan Mahādevī.
- 4) Acales. = Acalesvara in the compound of the Tyāgarājesvara(no. 36).
- 5) This temple is not mentioned in any publication in English dealing with inscriptions and/or monuments of the Early Coḷa period. There are, however, a few images from this shrine in the Thanjavur Art Gallery. The fact that they display characteristics of the phase of Rājārāja I made us wonder whether the building could be an Early Coḷa monument and so we paid a visit to the site.
- 6) Kap. = Śrī Kapardīśvara.
- 7) TK = Ten Kailāsa and UK = Uttara Kailāsa; both monuments are situated in the courtyard of the Pañcanādīśvara.
- 8) This temple is not mentioned in any publication in English dealing with inscriptions and/or monuments of the Early Coḷa period. We discovered it by accident.
- 9) See note 8).
- 10) Gaṅgaikoṇḍac. = the Pārvatī or Amman shrine in the courtyard of the Gaṅgaikoṇḍacoḷeśvara at Gaṅgaikoṇḍacolapuram.
- 11) Wan. = Wanyaganātha and Tyā. = Tyāgarājesvara; both temples are situated in the same, inner courtyard.
- 12) The temples along the northern bank of the undivided Kāverī are included since they belong to the Kāverī area (see caption of this appendix).

When the shrines in the list on p. 381 are re-arranged according to their distribution in combination with the types of their base (see appendix 12), the following distribution of temple variants appears (see p. 383):

phase	no. of temples	no. of layouts	dominant type of base
1000-1044	10	10	IB1/IIB1
985-1000	11	10	IA2a/IB2a/IIB2a
980-985	10	5	IA2a/IB2a
969-980	8	1	IB2a/IIB2a

Each phase is characterized by a specific spread. The frequency in which new temples were erected is not constant. It is very high in the five years before the death of Uttama Coḷa, viz. each year two buildings.

A.D.

1044

1000

985

980

969

I-2-a/1-A-1 ?-5-c/1-A-1 1-1-a/1-A-0 II-2-b/1-A-3 II-4-b/3-B-3 II-4-b/1-B-1 1-2-a/1-B-3 1-1-a/1-B-3 I-1-a/0-A-0 I-2-a/1-A-0			35		37	36
		33KP				34
		31KP 30KP 29	32KP			
			27			
I-E-a/1-B-3 I-1-a/1-B-1 II-2-b/1-B-1 II-4-b/1-A-3 II-3-b/1-A-1 II-4-b/1-A-1 I-2-a/1-A-1 II-3-b/1-B-1 II-4-b/1-B-3	25(2) 38 39 40 22P		24BN		26	26
					21P 20	23P 20KP
II-2-b/1-B-3					19P	
II-2-b/3-A-3 III-5-c/3-A-3 II-4-b/3-B-3 II-4-b/1-B-3 II-2-b/1-B-3	17 13 12 9			16 10	15 14 11 18(KP)	
I-2-a/1-B-3	1	6	6		7 4 3 2	7 4 8 5
lay-out base	IA2a	IB1	11B1	IB2b	IB2a	IIB2a

N.B. In view of the distribution of temples according to the type of layout and base, the Uttara Kailāsa at Tiruvaiyārū (no. 24) can be attributed to the 11th century. For, its base consists of a combination of mouldings which were dominant in the 11th century. Moreover, its lay-out is unique, whether included in the group of koyils raised between A.D. 985-1000 or in the cluster of monuments erected in the 11th century.

Appendix 12

Temples east of the Grand Anicut arranged according to the shape of their adhiṣṭhāna and characteristics, their dating.

Name of the village	lay out	Characteristics ¹⁾							podigai	ref. ²⁾	date
		base	vari	upāna	kāl	idai	nātt.	pan.			
Temples on a 1A2a base:											
Tiruppalanam	II-5-b/3-A-3	1A2a	N +	ORS	+	-	-	RATH	7, 42	ca.870-875	
Tillaiasthānam	II-3-b/3-A-0	1A2a	- +	ORS	-	-	-	Th	7, 42	ca.870-875	
Tiruvēdikkudi	II-4-b/3-A-1	1A2a	c	ORS	-	-	+	ATH	7, 42	ca.870-875	
Tiruchchātturai	II-2-b/1-A-0	1A2a	- L	S	-	-	-	Th	7, 42	ca.875-880	
Melattiruppūndurutti	I-2-a/1-A-0	1A2a	- +	S	-	-	-	Th	7, 42	ca.875-880	
Kumbakonam	II-3-b/3-A-1	1A2a	v1 L	S	-	NV	+	Th	7, 42	ca. 880	
Tirukkaḷavūr	1-2-a/1-A-1	1A2a	v +	ORS	-	-	+	Th	9, 42	ca.887-890	
Nemam	II-2-b/1-A-0	1A2a	v1 +	S	-	-	+	Th	9, 42	ca.884-885	
Tiruverumbūr(Tri)	I-1-a/1-A-0P	1A2a	v1 +	ORS	-	-	+	A	8, 42	ca.880-885	
Alambakkam(Tri)	()-2-a/1-A-0	1A2a	- +	S	-	-	-	A	14,	ca.890-895	
Kōyildevārāyanpēṭṭai (II)	-2-a/1-A-1P	1A2a	v +	S	-	-	-	Th	8,	ca. 940	
Tiruppalturai	I-1-a/1-A-1	1A2a	v +	ORS	-	-	3x	Th	9,	ca. 950	
Tirukalittattai	I-1-a/1-A-1	1A2a	v1 +	ORS	+	-	-	Th	9,	ca. 950	
Tirukkuhukavūr	I-2-a/1-B-1	1A2a	v1 +	ORS	-	-	-	Th	10,	ca. 960	
Kōnērīrājapuram	I-2-a/1-B-3	1A2a	v1 +	OR	-	-	+	Th	11, 40	ca. 960	
Tirukkodikkaival	II-2-b/1-B-3	1A2a	v1 +	ORS	+	-	+	Th	11, 40	ca. 960	
Ānangūr	II-4-b/1-B-3	1A2a	v1 +	ORS	-	-	+	Th	11, 40	ca.981-985	
Tiruvīdaimarudūr	II-4-b/3-B-3	1A2a	v1 +	ORS	?	V	?	?	11, 40	ca.981-985	
Nāgapattinam	II-2-b/3-A-3	1A2a	v +	ORS	-	V	-	Th	11, 40	ca. 980	
Tirukalattiyūr	II-3-b/1-B-1BN/P	1A2a	v1 +	RMS	+	-	+	Th	11, 40	ca.986-990	
Tirumaṅgalam(Tri)	II-3-b/1-A-1P	1A2a	v H	ORMS	+	-	+	Th	8,	ca.990-1000	
Puñjai	I-1-a/1-B-1/2	1A2a	v +	OMS	-	-	+	Th	11, 40	ca.990-1000	
Kōvilāḍi	I-1-a/1-A-1	1A2a	v H	ORS	-	-	-	Th	9,	renova...	
Temples on a 1B2a base:											
Tiruvādūturai	1-2-a/1-B-1P/BN	1B2a	v1 ¹ L	OS	-	-	-	Th	10,	ca.925-930	
Karandai	I-2-a/1-B-1PP	1B2a	v1 L	ORS	+	-	-	Th	10,	ca.932-935	
Tirumayānam	I-2-a/1-A-1P	1B2a	v1 ?	S	-	-	-	Th	8,	ca.935-940	
Kīṭṭanūr	I-2-a/1-B-3	1B2a	v1 L	RMS	-	-	-	A	11, 40	ca.969-975	
Tirunāgēśvaram	I-2-a/1-B-3	1B2a	v1 L	ORS	-	-	-	Th	11, 40	ca.969-975	
Tiruppugalūr(ex.niche)	1-2-a/1-B-3	1B2a	v1 L	ORS	+	V	-	Th	11, 40	ca.969-975	
Āduturai(ardham.)	I-2-a/1-B-3	1B2a	v1 ?	RMS	-	V	-	Th	11, 40	ca.969-975	
Kūhūr	II-4-b/1-B-3	1B2a	v1 L	ORS	-	V	-	Th	11, 40	ca.981-985	
Śembyan Mahādevī	II-4-b/3-B-3	1B2a	v1 L	ORS	+	-	-	Th	11, 40	ca.981-985	
Tiruvārūr(Ac)	III-5-c/3-A-3	1B2a	v1 L	ORMS	+	-	-	Th	11, 40	ca. 980	
Pateesvaram	II-2-b/1-B-3KP	1B2a	v1 L	ORS	+	N	-	Th	11, 40	ca.970-975	
Tiruvāḷaṅguḷi(ex.niche)	II-4-b/1-B-3KP	1B2a	v1 H	RMS	+	-	-	Th	11, 40	ca.988-990	
Manampādi	II-4-b/1-B-3P	1B2a	v1 ?	ORMS	+	-	+	Th	11, 40	ca.988-990	
Tirumiyachchūr(ardham.)	1-E-a/1-B-3	1B2a	v1 L	OS	+	-	+	Th	11, 40	ca.990-1000	
Kēḷappaluvūr(Tri)	I-2-a/1-A-0P	1B2a	- +	OS	-	V	-	Th	8,	ca. 990	
Mēlappaluvūr(Tri)	I-2-a/1-A-1	1B2a	- +	S	-	-	-	T/Th	11,	ca. 990	
Temples on a 1B2b base:											
Tiruchchennampūṇḍi	II-4-b/3-A-1	1B2b	v1 +	ORMS	+	?	+	Th	7, 42	ca.880-885	
Pullamaṅgai	III-4-b/1-A-1PP	1B2b	v1 +	ORS	-	VN	+	Th	8, 42	ca.885-890	
Tiruppurambyam	II-3-b/1-B-1PP	1B2b	v1 L	OR	-	V	+	Th	10,	ca.910-915	
Gandaradittam	?-2-a/1-B-1	1B2b	v L	ORS	-	-	-	A	10,	ca. 980	

Appendix I2(continued).

Name of the village	Characteristics 1)										ref. 2)	date
	lay out	base	vari	upāna	kāl	idāl	nātt	pan.	pod.			
Temples on a IB2b base(continued):												
Vridhāchalam(S.A.)	II-2-b/I-B-3	IB2b'-	v	L	ORMS	-	-	-	Thr	11, 40		981
Tiruchcheṅgāttaṅguḍi	II-4-b/3-B-3	IB2b''	v	l	ORS	+	-	-	Thr	11, 40		931-985
Kuttālam	II-2-b/1-B-3P	IB2b''	v	L	ORM	-	-	+	Thr	11, 40		986
Temples on a IBI base:												
Tirukkāttuppalli	I-2-a/0-A-0	IB1	(v)	+	OS	-	-	-	A	9,		? -870
Tiruvilākkuḍi	(II)-2-a/1-B-1	IB1	v	l	OS	-	-	-	Thr	10,		959
Tirunāraiūr(ex.niche)	I-2-a/1-B-3	IB1	v	l	+	ORS	-	-	Thr	11, 40		969-980
Tirukkollikkāḍu	I-2-a/1-A-1	IB1	v	H	OS	-	-	-	Thr	11, 40		renovated
Vēdāraṇyam	I-1-a/0-A-0	IB1	v	L	S	-	N	-	T	11, 40		1007(-1044)
Gaṅgaikōṇḍaḥapuram	II-4-b/3-B-3KP	IB1	v	H	S	-	-	-	T	11, 40		1012-1044
Ramanātha koyil	I-1-a/1-B-3KP	IB1	v	L	OR	-	-	-	T	11, 40		1019
Mahārājapuram	I-2-a/1-B-3KP	IB1	v	?	OS	+	-	-	T	11, 40		1012-1044
Temples on a IIB1 base:												
Tirukkandiyūr	II-2-b/1-A-1	IIB1	c	+	ORS	-	-	+	A/Thr	7, 42		875-880
Tiruvaiyārū(Pan)	II-2-b/1-A-0	IIB1	-	+	S	-	-	-	Thr	7, 42		875-880
Lalgudi(Tri.)	I-2-a/1-A-0/1	IIB1	v	+	0	-	-	+	Thr	7, 42		880-890
Kilaiyūr(Tri.)2x	II-2-b/1-A-0	IIB1	-	+	S	-	-	-	Thr	7, 42		890-892
Tirunāraiūr(niche)	I-2-a/1-B-3	IIB1	v	l	+	OR	-	-	Thr	11, 40		969-980
Tiruvaiyārū(UK)	II-2-b/1-B-1BN	IIB1	v	l	H	0	-	-	Thr	11, 40		1000-1006
Tiruveṅkādū	I-2-a/1-A-0	IIB1	-	+	S	-	-	-	Thr	11, 40		ca.1000
Tiruvārūr(Wan)	I-1-a/1-A-0	IIB1	v	l	+	0	-	-	A	11, 40		1012-1044
Coḷapuram	II-4-b/1-B-1KP	IIB1	v	H	0	-	-	-	T	11, 40		1012-1044
Temples on a IIB2a base:												
Tiruvālāṅguḷi(Ks)	I-2-a/1-B-3	IIB2a	v	l	?	RMS	-	-	Thr	11, 40		969-980
Tiruvirāmeśvaram	I-2-a/1-B-3	IIB2a''	v	l	+	ORS	-	-	Thr	11, 40		969-980
Āḍuturai(vimāna)	I-2-a/1-B-3	IIB2a''	v	l	+	RMS	-	V	Thr	11, 40		969-980
Tiruppugalūr(niche)	I-2-a/1-B-3	IIB2a''	v	l	+	ORS	+	V	Thr	11, 40		969-980
Tirumiyachchūr(vimāna)	I-E-a/1-B-3	IIB2a''	v	l	+	OS	+	-	Thr	11, 40		990-1000
Tiruvālāṅguḷi(niche)	II-4-b/1-B-3KPIIB2a''	v	l	H	ORM	+	-	-	Thr	11, 40		988-990
Tiruvaiyārū(TK)	II-4-b/1-A-3P	IIB2a	v	l	H	SO	-	-	Thr	11, 40		1000-1010
Tiruvārūr(Tyag)	?-5-c/1-A-1	IIB2a	v	L	RMS	-	V	+	Thr	11, 40		ca. 1013
Tirumalavāḍi	II-2-b/1-A-3BNIIB2a	v	+	0	-	-	-	-	Thr	11, 40		1013-1026
Temples on a IIB2b base:												
Gōvīndaputtūr	I-2-a/1-B-1	IIB2b''	v	+	ORS	-	-	-	A	10		ca.979
Kuttālam(paṇḍara)	II-2-b/1-B-3P	IIB2b''	v	l	ORM	-	-	+	Thr	11, 40		986
Temple on a IB3 base: :												
Sendaiai	(II)-I-a/0-A-0	IB3	-	+	S	-	-	-	Thr	43		? -870

1) v(l)=vari(with lotus petals); L=upāna with lotus petals; H=high upāna; S=square; 0=octagonal; R=round; M=polygonal; +=present; -=absent; V=vyāli; N=nāṭṭiya-peṇ; ?=not sure; R=ribbed; A=angular; Th=throated; KP=kumbhapaṇḍara; P=paṇḍara; PP=paṇḍaras on both vimāna and ardhamaṇḍapa; E=elephant's back; N=footboard under niche; c=vari uninterrupted by niches; b'=kapota with vyālis; b''=kapota with kūḍus and vyālis; a''=paṭṭikā with double row of lotus petals; ()=not original or absent.
nātt.=nāṭṭiya-peṇ or vyāli; pan.=panel decoration under kāl; pod.=podigai.
Place name in italics= citizen koyil

2) ref.= references(number referring to appendix, Figure in our text.

Appendix 13

Temples in South Arcot, their characteristics and their dating as suggested

Name of the village	Characteristic s ¹⁾					kāḷ podigai
	base	vari	upāna	vimāna	layout	
1. Tiruvakkarai	IA2a	(c)	(L)	()-1-b/ ()-A-()	S	throated,
2. Tiruvāmatūr	IA2a	c	H	I-1-b / Ø-A-Ø	S	throated
3. Erumbūr	IA2a	-	-	I-2-a / Ø-A-Ø	S	throated
4. Grāmam	IA2a	-	-	II-2-b/ Ø-A-1	S	angular
5. Pēraṅgiyūr	IA2a	-	-	?-1-b/ 1-A-()	S	throated
6. Bāhūr	IA2a	-	H	I-1-a/ 1-B-1	S	throated
7. Uḍaiyārgudi	IA2a	+	L	()-2-b/ 1-B-1	OR	throated
8. Tiruvāndārkōyil	IA2a	+	-	()-2-b/ 1-B-1	S	angular
9. Eṣālem	IA2a	+	-	I-2-b/ 1-A-1	SO	angular
10. Pennadam	IA2a	+	-	I-2-b/ 0-A-0	SOM	angular
11. Brahmaḍēśam(Br)	IA2a"	+	-	I-2-b/ 1-A-1	SOR	T-shape
12. Siddhaliṅgamaḍam	IA2a	+	-	()-2-b/ 1-A-1	SOR	T-shape
13. Tirunāmanallūr	II B1	-	-	I-2-a/ 1-A-0	S	throated
14. Kiḷiyanūr	II B1	-	-	II-2-b/ 1-A-Ø	S	angular
15. Tiṇḍivanam	IB1	c	-	II-3-b/ 1-A-1	SOR	angular
16. Kīlūr	IB1	+	L	()-2-b/ 1-B-1	SOR	throated
17. Vriddhāchalam	IB2b'"	+	L	II-2-b/ 1-B-3	SOMR	throated
18. Jambai	IB2a	+	L	()-2-a/ 1-B-1	SOR	angular
19. Brahmaḍēśam(P)	IB2a	+	H	()-2-b/ 1-B-3	SOR	angular
20. Madagadipattu	IB2b"	+	L	I-2-b/ 1-A-1	R	throated
21. Dadapuram(2x)	IB2b"	+	H	III/II-4-b/1-B-1	OR	angular
22. Tribhuvana	IIB1	+	H	()-1-c/ 0- -0 0		throated
24. Tirukkoyilūr(V)	IB1	+	HL	()-1-b/ I-B-I	S	T-shaped

1) see appendix 12, note 1); Ø = cut-out niche; 2) see appendix 11.

Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

Dating according to			References ²⁾
B	Br	H	
renovated 1001		890	BrII,116;BII,201-2.
913	975	910	BrII,78;BII,78-80.
935	935	935	BrII,75-6; BII,67-70.
943	943	943	BrII,76-7; BII,60-3.
-	950	935-40	BrII,88.
965	965	965	BrII,86-7; BII,88-89;App.10.
940	965	940	BrII,107-8;BII,70-9;App.9.
922	990	967-70	BrII,115-6; BII,83-4;App.10.
935-15	-	1000-14	BIII,157-9.
-	-	1015	SII 234-267/1929;BII,191.
985-15	-	1100 -?	BIII,147-50.
-	-	1070	SII 367/1909.
935	935	935	BrII,76;BII,64-7.
870-07	?-940	940	BrII,64;BI,196-7.
956-73	-	950-55/ 980-?	BII,144-5;App.8.
907-55	959	975-80	BrII,87-8;BII,85-8;App.10.
981	981	981	BrII,93-4;BII,197-200;App.11.
985-00	-	980-90	BII,250-1;App.10
1015-44	-	990-1000	BIII,279.
985-15	-	1000-14	BIII,132-3.
1006	1006	1000-06	BrII,116-7;BIII,159-64;App.8, 10
997-17	-	1000-15	BIII,349.
1058	-	1058	BIV,46.

Appendix 14

Temples in the Tiruchirappalli District arranged according to the shape of their dating as suggested by Balasubrahmanyam (B), Barrett (Br), Soundara

No. Name of the village		characteristics ¹⁾				
		śikhara grīvā vimāna layout base vari kāl podigai				
1.	Nārttāmalai	R	block III-5-c / 0-A-0	IA2a	- S	angular
2.	Kaḷiyapaṭṭi	S	block I-1-a / 0-A-0	IA2a	- S	angular
3.	Viśalūr	S	block I-1-a / 0-A-0	IA2a	- S	angular
4.	Tiruppūr	S	block I-1-a / 0-A-0	IA2a	- S	angular
5.	Kiranūr	S	? I-1-a / 0-A-0	IB1	- S	angular
	(Śendalai	?	? ()-1-a / 0-A-0	IB3	- S	throated)
6.	Panangudi	S	pil. I-1-a / 1-A-0	IA2a	- S	angular
7.	Kannanūr	R	pil. I-1-a / 1-A-0	IA2a	- S	angular
8.	Tirukkaṭṭalai	S	II-2-b / 1-A-0	IA2a	- S	throated
9.	Koḍumbālūr (Mc)	S	II-2-b / 1-A-0	IA2a	- S	throated
10.	Koḍumbālūr (Mv)	S	II-2-b / 1-A-0	IIB1	- S	throated
11.	Chittūr	?	II-2-b / 1-A-0	IA2a	- SOR	throated
12.	Virālūr	R	I-2-b / 1-A-0	IA2a	- S	angular
13.	Śrīnivāsanallūr	S	II-3-b / 1-?-1	IB1	+ SOR	angular
14.	Tiruchchendurai	S	II-2-b / 1-A-0	?B1	- S	throated
15.	Kilaiyūr	S,R	II-2-b / 1-A-0	IIB1	- S	throated
16.	Lalgudi	R	I-2-a / 1-A-0	IIB1	+ 0	throated
17.	Tiruverumbūr	?	I-1-a / 1-A-0 ^P	IA2a (+)	(SOR)	angular
18.	Aḷlūr (Pan)	0	II-2-b / 1-A-0	IB1	- S	angular
19.	Aḷlūr (Pas)	R	I-2-b / 1-A-0	IIB1 IA2a	- S	angular
20.	Aṇḍanallūr	?	II-4-b / 1-A-0	IA2a	- S	throated
21.	Nangavaram	R	II-2-b / 1-A-0	IA2a	- 0	throated
22.	Alambakkam (K)	?	()-2-a / 1-A-0	IA2a	- S	angular
23.	Kumāravayalūr	?	I-2-a / 0-A-0	IA2a	- S	angular
24.	Śōmūr	R	I-1-a / 1-A-0	IA2a	- S	throated
25.	Perungudi	R	I-1-a / 1-A-0	IA2a	- S	angular

1) see appendix 12, note 1); block=cut-out niche containing slab with image
pil.=cut-out niche flanked by pilasters.

2) see appendix 11; Ch.=Chandra.

their śikhara, the composition of the grīvā niche and other characteristics; Rajan(Sr) and ourselves(H).

References	2)	Dating according to B Br Sr	H	Appendix
BrII,44-6;BI,44-52; Ch,284-5,300.		850-70 ?-870 845	860-870	-
BrII, 46-7;BI,52-4;Ch,263-4,300.		850-70 850-?	845-60 ?-870	-
BrII,46-7;BI,57-8; Ch,265,300.		850-70 850-?	845-60 ?-870	-
BrII,46-7;BI,58-9; Ch,264,300.		850-70 850-?	845-60 ?-870	-
Ch,282-3,300		- -	845-60 ?-870	-
BrII,47;BI,54-6;Ch,263,300.		850-70 875	845-60 870-900	-
BrII,62-3;BI,86-7; Ch,282,300.		870-07 870-940	845-60 870-900	-
BrII,60; BI,89-92;Ch,278-9,299.		874 910	915 890-910	-
BrII,74; BII,26-8;Ch,280,299.		921 921	935-50 890-910	-
BrII,86; BII,108-37;Ch,272-3,300.		950-70 950-70	860-75 890-910	-
BII,17-22.		950 -	- ca.910	-
BrII,47;BI,56-7;Ch,281,300.		850-70 870-907	845-60 ca.925	-
BrII,74-5; BI,100-3;Ch,292-3,300.		894 927	890 875-890	no.7
BrII,52-3; BI,93-7; Ch,275-6,299.		893 909	890-05 890-900	no.7
BrII,50-2; BI,107-11;Ch,274-5,300.		884 892	875 890-892	no.7,12
BrII,53; BI,97-9; Ch,293,299.		898 897	890-05 880-890	no.7,12
BrII,83-4; BI,114-23.		875-89 952	- 880-889	no.8,12
BrII,72-3; BII,11-2.		895-15 910	- 890-900	no.9
BrII,73; BII,12-5.		924 924	- 890-910	no.9
BrII,71-2; BII,15-7;Ch,279,299.		918 918	935 ca.895	no.7
BrII,72-3;BII,41-2; Ch,288-9,300.		910-20 910-20	845 890-910	no.9
BI,103-6.		?-910 -	- 890-910	no.12
BI,132-3.		900 -	- ? -870	-
BII,223.		913 -	- 930-50	-
BII,156.		964-69 -	- 930-50	-

pil.= cut-out niche flanked by pilasters.

Appendix 14 (continued).

Other monuments discussed already in appendices B-9 and 12 and built after A.D. 1000. For references see there.

No.	Name of the village	c h a r a c t e r i s t i c s					Dating according to		
		śikhara	lay-out	base	kāl	podigai	B	Br	H
26.	Tirupalturai (app. 9)	R	I-1-a/1-A-1	IA2a	SO	ang.	9th C.	925	960
27.	UyyakkōṇḍānTiru- mālai (app. 9)	0	()-1-a/1-A-1	IA2a	SOR	thr.	917	-	979-80
28.	Kīlappaluvūr (app. 8,12)	0	I-2-a/1-A-0 ^{BN}	IB2a"	SO	thr.	919	984	984
29.	Goburapatti (app. 8,12)	?	II-4-b/1-A-1 ^D	IA2a	SOMR	thr.	981	-	990-
30.	Tirumaṅgālam (app. 8,12)	0	II-3-b/1-A-1 ^D	IA2a	SOMR	thr.	990	-	990-
31.	Tudaiyūr (app. 8,12)	0	I-2-a/1-A-1 ^D	IA2a	SOMR	thr.	871-907	969-85	990-
32.	Mēlappaluvūr (app. 12)	R	I-2-a/1-A-1	IB2a"	S	thr./T	-	-	ca. 10th C.
33.	Nārttāmālai	R	I-1-a/1-B-1	IB2a"	SO	T	10th C.	-	post- Earl. ca.
34.	Amman shrine at Gaṅgaikōṇḍacōla- puram (app. 12)	0	II-4-b/3-B-3	IB1	S	T			

In the list the renovated shrines at Enadi, Kamarasavalli and Nirpalani are omitted. In their present, modern state they can be characterized as follows:

Enadi	S	I-1-a/0-A-0	IA2a	S	T
Kamarasavalli	R	III-?-c/0-A-1	IA2a+	SO	ang.
Nirpalani	?	()-2-b/1-B-1	IA2a+	S	ang/T

Other features indicating the absence of Early Cola influence are the open porch at Enadi instead of a small closed ardhamandapa; an unique lay-out at Kamarasavalli which has four projecting bays instead of three or five. The niches in the vimāna of this temple are cut-out without further ornaments. From the second tala upwards the building is of brick as is the upāna.

Appendix 15

Temples in the Palar region arranged according to the shape of their adhiṣṭhānas, their vari, their upāna and other characteristics. Dating as suggested by Balasubrahmanyam(B), Barrett(Br) and ourselves(H).

	characteristics ¹⁾										Dating according to			References ²⁾
	sikhara	base	vari	upana	vimāna layout	kāl	podigaṣ	nattiya	KK	ida	B.	Br.	H.	
MĀMALLAPURAM														
1. Mukunda Nayanar	O	IA2a	-	-	11-1-b/0-A-(1)	S	R	-	-	-	L A T E P A L L A V A			
2. Arjuna Ratha	O	IA2a	-	H	11-3-b/(5)-A-0	O	R	V	+	-				
3. Shore temple	O	IIA1a	c1	-	V-1-c/(1)-A-0	L	R	-	-	-				
4. Dharmarāja Ratha	?	IA2b'	c	H	sandhara	L	R	-	+	-				
5. Olakanesvara	?	IIA1a	c1	H	?-1-a/(1)-A-(1)	LO	R	-	?	-				
KĀNCĪ														
6. Kailāsanātha	R	IA2a	-	-	1V-4-c/?	O	R	-	-	-	ca. 750-850			
7. Piravatanesvara	R	IA1a	-	-	11-1-a/(1)-A-(1)	SL	R	-	-	-				
UTTARAMALLŪR														
8. Sundera Varada- rāja Perumal	R	IA2a/ II1B1	- N	H	111-5-c/C-A-1	S	R	N	-	-				
9. Kailāsanātha	R	IA2a	-	H	111-3-c/(5)-A-(1)	S	R	N	-	-				
10. Takkoḷam	?	IB1	N	+	11-1-b/(1)-A-(1)	S	RF	-	?	+	892	892	?-870	B1, 210-15; Br, 64-5
11. Brahmadesam	R	IA2a	N	+	111-1-c/1-A-1	S	RF	-	-	-	?-890	890-910	845-70	B1, 201-5; Br, 67
12. Tiruttāni	E	IA2a	N	+	1-1-a/1-A-1	S	RF	-	-	-	-	903	903	Br, 65-6
13. Veḷachcheri	S	IA2a	N	+	1-1-a/1-A-1	S	RF	-	-	-	?-954	961-85	900	B11, 145-8; Br, 107
14. Tiruvanniyūr	O	IA2a	N	+	1-1-a/1-A-1	S	A	-	-	-	-	-	1017	Ranga, 430-1
15. Paramesvaramangalam	O	IA2a	v	+	111-1-b/1-B-1	O	A	-	-	+	969-85	-	969-85	B11, 207-8; App. 10
16. Tiruvallam	O	IA2a	v	+	1-1-a/1-A-1	S	A	-	-	-	?-985	?-985	900-1014	B1, 215-20; Br, 106
17. Tenneri	?	IA2a	v1	?	11-4-b/1-A-384	?	A	-	-	+	995	-	995	B111, 405; App. 8
18. Mēlpādī (Som)	?	IA2a	-	+	11-2-b/1-A-1	S	A	-	-	-	999	999	999	B111, 177; Br, 117-8
19. Mēlpādī (Co)	R	IA2a	v1	+	1-1-a/1-A-1	OR	A	V	-	-	1014	1014	1014	B1, 178; Br, 117-8
20. Kāvanṭandālam	E	IA2a	v1	L	1-2-b/1-A-1	S	Trib	-	-	+	1016	-	1012-16	B111, 285-87
21. Vempakkam	?	IA2a	v1	?	1-1-b/1-A-1	S	Trib	-	?	+	-	-	1000-30	-
22. Kuvam	E	IA2a	v1	?	(111)-2-b/1-A-1	S	Trib	-	-	-	1012-44	-	1000-30	B11, 287-90
23. Pūdup	R	IA2a	v1	?	1-2-b/1-A-1	S	Td	-	+	-	-	-	1030-34	-
24. Kāñcī (Śok)	R	IA2a	v1	L	1-1-b/1-A-1	S	T	-	+	+	870	-	1012-44	B1, 75-7
25. Kāñcī (Ekam)	?	IA2a	v1	HL	?-2-b/1-A-1	OR	Th	-	-	-	-	-	1012-?	-
26. Tiruvadandal	S	IA2a	v1	HL	11-3-b/1-A-1	CR	T	-	-	-	959-85	-	1035-?	B11, 202-7
27. Tiruvorriyūr (ardha.)	E	IA2a	v1	L	111-E-c/1-A-1	OR	T	-	-	-	1012-44	-	1015-20	B111, 300-5
28. Tirumaliśai	R	IA2a	v	L	11-2-b/1-A-1	S	T	-	-	-	-	-	1035-?	Ranga, 419-22
29. Kulambandal	R	II1B1	v1	H	11-4-b/3-B-1	OR	Td	-	+	-	1023-34	-	1023-34	B111, 309-11
30. Tiruppachchiyūr	E	IB1	v	+	111-E-c/1-A-?	S	T	-	+	-	1012-44	-	995-97	B111, 293-98
31. Tirumullalvāyīl	E	IB2a'/b'v1	L		111-E-b/1-A-1	ORS	T	-	-	-	983	-	1000-15	B11, 209-12
Tennūrti (niche)		IB2a'	v1	?										
Tiruvorriyūr (vimāna)		IB2a'/b'v1	L											

1) see appendix 12; 11 = ogeed jagatī Pallava style, i.e. without lotus petal decoration; E = apsidal; RF = ribbed with vertical fascia; Trib = T-shaped with ribs; Td = T-shaped with drop; LO = pilaster with vyāli (rearing lion) base.

2) see appendices 11 and 14.

Appendix 16

Some Pāṇḍya temples in the Tinnelveli District.

We have omitted the temples of the Tinnelveli District from our general discussion because there are only few inscriptions from the 9th and 10th centuries. Moreover, their limited number does not allow a demarcation of regions. We paid visits to eleven shrines either because the oldest records on these koyils are inscriptions of Rājarāja I, or because they are generally believed to have been built before A.D. 1000. Six of these monuments appeared to have retained their original features though in some cases only partly.¹⁾ The other five were either demolished or completely renovated.²⁾

Even the first six examples demonstrate that the Deep South of the Indian subcontinent maintained a local Pāṇḍya idiom during the period in which the Coḷas grew into a powerful nation. This can best be illustrated by comparing some of their features with those which appeared to be essentially Early Coḷa contributions to South Indian architecture. We have, therefore, listed their characteristics in Fig. a.

Fig. a. Main characteristics of Pāṇḍya temples in the Tinnelveli District.

name of village	layout vim./ardh.	other base	vari	kāl	podigai	śikhara
Tiruvāṭṭīśvaram ¹⁾	II-3-b/0-A-0	IA1	v	S	angular	0
Attūr	II-1-a/0-A-0	IA2a	vl	S	angular	0
Vijayanārāyaṇam ²⁾	I-1-a/0-A-0	IA3a	v	S	angular	R
Peruṅguḷam ³⁾	?-3-b/ ?	IA3b	vl	-	renovated	-
Sendamaṅgalam	II-1-a/0-A-0	IA2a	v	S	angular	S
Korkai	I-1-a/0-A-0	IA2a	-	S	angular	S

1) = central, blind niches covered with makaratorṇa, other blind niches with kapota.

2) = bhūtagaṇa frieze replaced by padmabandha.

3) = upāna.

v = vari; vl = vari with lotus petal decoration; S = square; 0 = octagonal; R = round.

Starting with the main innovation introduced by the Early Coḷa sthāpatis, viz. the central bay which juts out, it seems that this feature was neither an invention of the Pāṇḍyas nor an aspect copied by them. The only complete temple with this accentuated central bay is located at Tiruvāṭṭīśvaram. Its II-3-b layout is, however, not typically Early Coḷa, for this type of vimāna was known

from the days of the Pallavas. The I-2-a, II-2-b and II-4-b vimānas — the last a type in which the central bay juts out more than the lateral bays — are all absent in this list.

A second, striking deviation from the Coḷa norm is the absence of niches. The shrine at Korkai is merely a plain, bare box and though the other temples do have blind niches, these are restricted to the walls of the vimānas.

A third aspect reveals in its simplicity the regional character of this small group of temples. For we demonstrated in our survey that the Early Coḷa sthāpatis tried to carefully balance the vertical composition of a building by designing vimānas of types I-2-a, II-2-b, II-4-b and so on (p. 86). The architects of the koyils in the Tinnelveli District did not achieve this balance, for next to the more common I-1-a they created the top-heavy type II-1-a.

Other Early Coḷa features such as the pañjara, the false antarāla and the niches in the walls of the ardhamandapa are all absent in the buildings listed above. This does not imply that the Pāṇḍya sthāpatis refused to build temples with one or more of these features, for a shrine at Īlāṅgi in the Ambasamudram Taluk is constructed according to the I-B-1 scheme. It was renovated from the foundation to the pinnacle by the Pāṇḍya king Alagan Kulaśekharadeva in A.D. 1409.³⁾

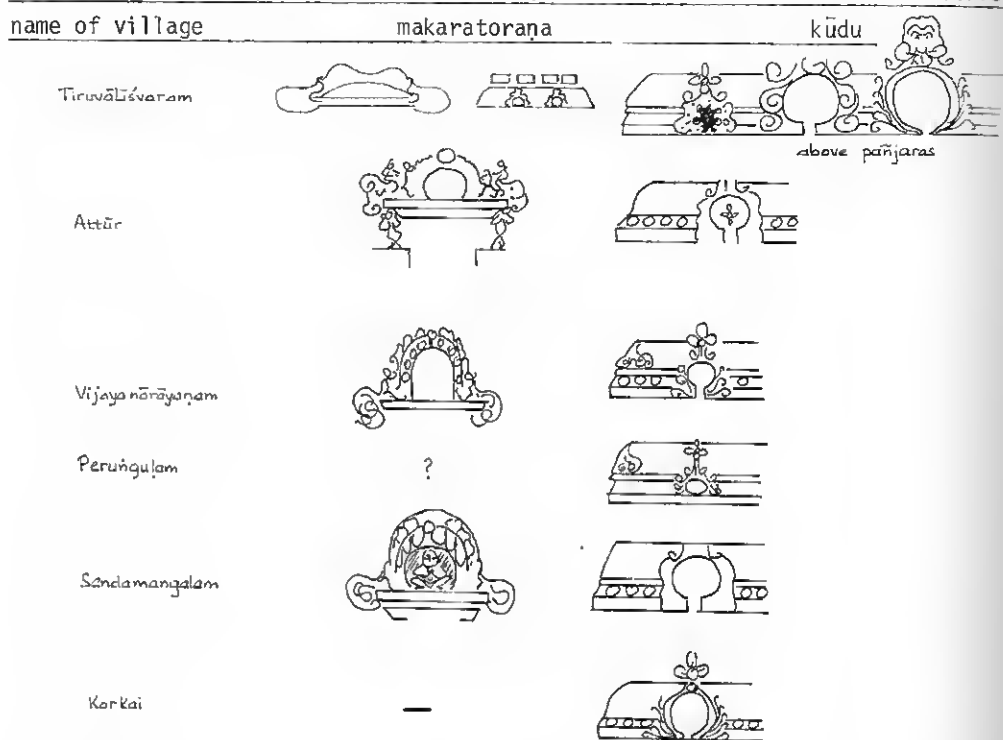
Although the IA2a socle is common throughout South India, the Pāṇḍyas added three new combinations to the types created by the Pallavas and the Coḷas (Fig. 37, p. 200; appendices 12 and 15), viz. the IA1, IA3a and IA3b base. The IA1 adhiṣṭhāna at Tiruvālīśvaram consists of a straight jagatī, a tripaṭṭa kumuda and a frieze of running animals without riders. At Vijayanārāyaṇam rafters are visible above the tripaṭṭa kumuda which are covered by a paṭṭikā. Finally, at Peruṅguḷam we noticed a renovated shrine standing on an original base, viz. an upāna, a straight jagatī and tripaṭṭa kumuda, a kaṇṭha with rafters capped by a kapota. The last element is decorated with small kūḍus with either a rosette or a śiṃhamukha. The profile of the kapota displays a fascia which is straight and carries inscriptions instead of the usual border of circles.

When the base of three out of six monuments deviates from the contemporary Coḷa type, this undoubtedly indicates the existence of a regional architectural style.

Having established the Pāṇḍya character of the adhiṣṭhānas to the south of Madurai, we were surprised to find the Coḷa vari on almost every building. Except at Korkai, this element — be it plain or decorated with lotus petals — is, moreover, interrupted by the, admittedly, blind niches in the walls of the vimānas. The fact that the vari does not run on indicates that it was copied

from other buildings with real devakoṣṭhas. For a blind niche cannot accommodate images and consequently does not need a floor, implying that it was not necessary to interrupt the vari at the place where the blind niche was designed.

Fig. b. Various shapes of the makaratoraṇa and kūdu in the Tinnelveli District



The kāl and podigai are in every respect angular. In general they are not decorated. The variation in contours and the combination of pilasters, which provide each Early Coḷa temple with an individuality of its own (Figs. 50-52, pp.250, 252) apparently did not appeal to the architects of the six Pāṇḍya koṭils. On the other hand, they obviously shared with the Coḷa sthāpatis the indifference with regard to the shape of the śikhara.

Finally, we have to pay attention to two features which were discussed in appendix 6, viz. the makaratoraṇa and the kūdu (Fig. b). Comparing these makaras with those in the Coḷamaṇḍalam, it is obvious that the same widely varying types occur in both countries. The kūdus also show this differentiation. They remain either under the edge of the kapota or are crowned by loose blocks. However, the horseshoe — still present at Kaḷugumalai — turned into a circle which either had a tiny slit connected to the bottom-edge of the kapota or was placed

above the vertical fascia. Invariably, the profile of the kapota on which these kūḍus occur, display the plain vertical fascia above which circles were carved in a slanting position.

In view of all this we can assume that temple architecture in the Deep South developed according to a specific regional pattern. Soundara Rajan's suggestion (p. 56) to include in this group of koyils the Talinātha at Tirupattūr as one of the earliest examples of Pāṇḍya architecture does not seem to be confirmed by the facts, for its deep niches, its pañjaras, its ribbed podigais and last but not least its II-4-b vimāna with its hardly perceivable central bay which is repeated in the kapota of the second tala — are all features common in the Coḷamaṇḍalam, indicating an influence from that direction.

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- 1) 1. Tīruvālīśvaraṃ, Vālīśvara (Ambasamudram Taluk, Tinnelveli District), SII, Vol. XIV, p. 47ff; ARIE, Vol. II, p. 223; Sastri 1955, pp. 455-56 and 706-28; Bootalingam, pp. 76-81; Chandra, pl. 129, p. 257.
 2. Attūr, Somanātheśvara (Tiruchchendur Taluk, Tinnelveli District), ARSIE 1929-1930, nos. 386-475.
 3. Vijayanārāyaṇam, Manonmanīśvara (Nanguneri Taluk, Tinnelveli District), SII, Vol. XIV, p. 17ff; ARSIE 1927, nos. 1-14.
 4. Peruṅgūlam, Tīruvaḷudīśvara (Sriivaikundam Taluk, Tinnelveli District), SII, Vol. XIV, p. 25ff; ARSIE 1932-1933, nos. 210-41.
 5. Sendamaṅgalam, Kailāsanātha (Tinnelveli Taluk, Tinnelveli District), ARSIE 1929-1930, nos. 476-88.
 6. Korkai, Akkaśalai koyil (Sriivaikundam Taluk, Tinnelveli District), ARIE, Vol. II, p. 223; Sastri 1955, p. 695.
 - 2) 1. Tiruppuḍaimarudūr, Caṇḍeśvara koyil in the Puṭārjuneśvara (Ambasamudram Taluk, Tinnelveli), SII, Vol. XIV, p. 46ff.
 2. Kottaikkarungūlam, Rājasimheśvara (Ambasamudram Taluk, Tinnelveli District), SII, Vol. XIV, p. 76.
 3. Kovilkulam, Tennalagar (Ambasamudram Taluk, Tinnelveli District), SII, Vol. XIV, p. 47.
 4. Īlāṅgi, Iruvālīśvara (Ambasamudram Taluk, Tinnelveli District), ER, Vol. III, 1908-1912, no. 528/1911.
 5. Ukkirankottai, Śiva koyil (Tinnelveli District), ARSIE 1935-1936, nos. 194-201; pl. 482 of Temple Survey Project of the Archaeological Survey of India, Madras.
 - 3) See note 2) no. 4.

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Glossary

I. Translation of Sanskrit and Tamil architectural terms. Aspects mentioned between brackets refer to the drawings in appendix 5.

- A. adhiṣṭhāna
(see aspect 3-7) the sockle of the shrine between the upāna or platform and the floor, consisting of several layers in the combination: jagatī, tripaṭṭa kaṇṭha, paṭṭikā (Pallava); jagatī or padma, kapota, vyāli-frieze (Cālukya); jagatī or padma, vṛtta (=round)patti or vṛttapaṭṭikā or kapota or vyāli-frieze (Coḷa).
- agramaṇḍapa type of entrance hall in Cālukya temples.
- āliṅgapaṭṭikā see kaṇṭha.
- alpa vimāna shrine without (a) hāra (s)
- anarpita term used to indicate that there is no space between the hāra and the main body of the superstructure; typical for the Cālukya, Pāṇḍya and Coḷa styles.
- antarāla
(see aspect 40) a small corridor between the ardhamāṇḍapa and the mukhamāṇḍapa.
- ardhamāṇḍapa
(see aspect 40) a hall in front of the garbhagrha, usually less wide (Pallava and Coḷa); nearly non-existing or rudimentary in the Cālukya style.
- arpita term used to indicate the space between the hāra and the main body of the superstructure (Pallava and Coḷa).
- B. bandha
bhūtagaṇa-frieze
(see aspect 23,1) a layer or frieze (see padmabandha).
bhūtamālā a layer immediately under the kapota consisting of frolicsome dwarfs, often playing musical instruments. Universal feature.
see bhūtagaṇa.
- C. catur tala a building consisting of four(=catur) storeys.
- D. deva(ī)
devakoṣṭha a hindu god(dess).
Drāviḍa niche for the sculpture of a deity.
controversial term used to indicate a South Indian order, but in reality indicating an octagonal śikhara which was never used for the garbhagrha but common for the śikhara.
- dvārapālas protectors of a temple standing on either side of the entrances to the cella and the hall.
- dvitala a building consisting of two(=dvi) storeys. In case it concerns a temple the śikhara should be counted as a tala.
- E. ekatala a buildings consisting of only one (=eka) storey. In case it concerns a temple, it carries only one śikhara.

- G. gala
garbhagr̥ha the "womb" or cella in which the main deity stands.
- gavākṣa
(see aspect 28,2) horseshoe-shaped window often called kūdu.
- gopura entrance gateway with tower in a wall surrounding a temple complex.
- grīvā neck of the temple on which the śikhara rests.
- H. haṁsa(bandha)
hāra goose(-frieze).
a row of śālās and kuṭīs on top of the prastara, usually only above the garbhagr̥ha, but in the Pallava style it includes the ardhamandapa as well.
lotus-petals above the kumbha; typical Coḷa.
- I. idal
(see aspect 16,4) sharp tip of lotus petal under the palagai.
- J. jagatī
(see aspect 3) the lowermost layer of the adhiṣṭhāna, usually straight(Pallava), slanting (Cālukya) or shaped in shrine with (a) hāra (s).
- K. kāl(see aspects 11-15) pilaster or pilar.
- kalaśa(see aspect 12) the pot-shaped upper end of the kāl.
- kamala(see aspect 6) lotus-shaped element directly under the palagai.
- kaṇṭha
(see aspect 6) the layer of an adhiṣṭhāna between the tripatṭa, vr̥tta or kumuda and the paṭṭikā or kapota. In case a vari is present above the adhiṣṭhāna the space in between these two elements is also called kaṇṭha.
- kapota
(see aspect 24) usually the cornice, occasionally a layer of the adhiṣṭhāna or a canopy above a devakoṣṭha. Characteristics are: a straight profile (Pallava), a sloping profile (Cālukya) or a bell-shaped profile (Pāṇḍya); a bottom-fascia decorated by a continuous row of circles (Coḷa) or a straight vertical fascia above which circles alternating with small, incised squares (Pāṇḍya); kūdus and koḍikkarukkus (universal).
- karnakuṭī a corner pavillion and part of a hāra; rarely also flanking the grīvā.
- koḍikkarukku
(see aspect 24,1-3) decoration of foliage, especially impressive at Kaḷugumalai(Pāṇḍya) and on Coḷa temples.
- koyil Tamil for temple.
- kūdu
(see aspects 25-28) caitya-window motif or horseshoe-shaped ornament on a kapota. The horseshoe is typical of the styles of the Pallavas, Cālukyas and Pāṇḍyas. However, the top of the kūdu differs: a shovel (Pallava), a śiṃhamukha(Pāṇḍya) or a trefoil (Cālukya). The Coḷa kūdu develops into a circle topped by a śiṃhamukha,

kumbha (see aspect 18)	bulbous element above the kalaśa of a kāl, just above the kamala. As a kumbhapañjara it is a pot-like ornament on walls.
kumuda (see aspect 4)	layer of the adhiṣṭhāna above the jagatī; see also tripatṭa and vṛtta.
kuṭṭī	square pavillion, usually a part of a hāra.
L. liṅga liṅgapīṭha	phallic symbol of Śiva inside the garbhagrha. block in which the liṅga rests; square in Cāḷukya temples but otherwise round. Also called yonī.
M. makaratoraṇa (see aspect 29)	decoration above a devakoṣṭha consisting of two makaras (= mythological animals) resembling crocodiles with foliated tails. The position of the makaras on or above the niche differs regionally.
mālāsthāna (see aspects 14-15)	decoration of a kāl under its padmabandha.
maṇḍapa	pillared hall.
mithuna (see aspect 22,1)	a couple of deities, demi-gods, human beings or dancing girls usually standing on top of a paśa.
mukhamāṇḍapa	a hall in front of the garbhagrha-ardhamāṇḍapa complex. Common in Cāḷukya and Pāṇḍya architecture but not applied by the Coḷas until the time of Rājāsraya.
munai	see idaḷ.
N. Nagara	term used to indicate a North Indian order, but in reality only indicating that the groundplan of the temple is either the vimāna or śikhara or both is a square.
Nandi	the vāhana or vehicle of Śiva in the form of a reclining bull; present on each corner of the ground plan platform of a temple dedicated to Śiva.
nāsi(kā)	see kūdu.
nāṭṭiya-peṇ	dancing girl.
P. padma	lotus(petal), usually in a row called padmabandha.
palagai (see aspect 17)	abacus; rather wide in the Coḷa style in comparison with the other three South Indian styles.
paḷlip(p)āḍai	sepulchral shrine.
pañjara (see aspects 60-62)	an ornament on a temple-wall consisting of two pilasters capped by a lintel, a kapota and a kumbha. See also kumbha.
parivāradevatā śaṭṭha- pel or parivārālaya	a small shrine in the compound of a temple dedicated to deity subordinate to that in the main koṭi.
paṭṭikā (see aspect 7)	a layer of the base with a vertical fascia and a decoration; occasionally replaced by a kapota. a feature of Cāḷukya and Coḷa temples.
podigai (Tamil) (see aspect 19)	Corbel. It has equally wide rolls in the Pallava style, complicated involutions or plain round files in the Cāḷukya style, a stark, angular(45°) in the Coḷa style.

	file on Pāṇḍya temples, while the Coḷa corbel is angular with simple, involuted rolls.
prakāra	wall surrounding temple-complex.
praṇāla	channel draining the abhiseka water.
prāsāda	see vimāna.
prastara (see aspects 23-28)	entablature including the bhūtagaṇa-frieze, kapota and vyāli-frieze.
ratha	monolithic vimāna.
S. śālā	rectangular pavillion usually part of a hāra.
sāṇdhāra	a temple with an ambulatory passage.
śikhara (see aspects 37-38)	the uppermost part of the vimāna structure above the grīvā. It has a straight profile in the styles of the Pallavas and Cālukyas, but is small in comparison with the Pāṇḍya and Coḷa śikhara.
siṃhalatā	row of lion's heads.
siṃhamukha (see aspect 26,3)	lion's head.
stambha	see kāl.
stūpī	finial: pot-shaped crowning element over a vimāna.
śukanāsa	protruding element of a śikhara above the projecting entrance of the garbhagrha; a typical western Cālukya feature.
T. tala	storey.
tarāṅga (see aspect 21)	decoration on a podigai.
tripaṭṭi(kā) (see aspects 4,1; 5,1)	kumuda with three facets (Pallava and Cālukya).
U. upāna (see aspect 2)	platform or moulding on which the entire temple- 1)
uttira	complex rests; cross-beam under the bhūtagaṇa-frieze.
V. vāhana	vehicle of a deity.
vari (see aspect 9)	small decorative layer above the adhiṣṭhāna.
Vesara	term used to indicate a mixed order with a round śikhara superimposed on a square shrine, which may result in an apsidal structure (elephant's back).
vimāna (see aspects 37-39)	the sanctum together with its superstructure and base. In South Indian architecture it is basically a cubical building with a pyramidal superstructure. Sometimes the vimāna has the shape of an elephant's back, the cella and the roof both being apsidal (Pallava); a mixed form is the combination of a square cella and an apsidal superstructure (Coḷa).
vīra-kaṇṭha	neck between palagai and podigai.

vṛtta (see aspect 4,5-4)	kumuda with a round profile.
vyālivari(Tamil) or	frieze of leogryphs.
vyālimālā(Sanskrit)	

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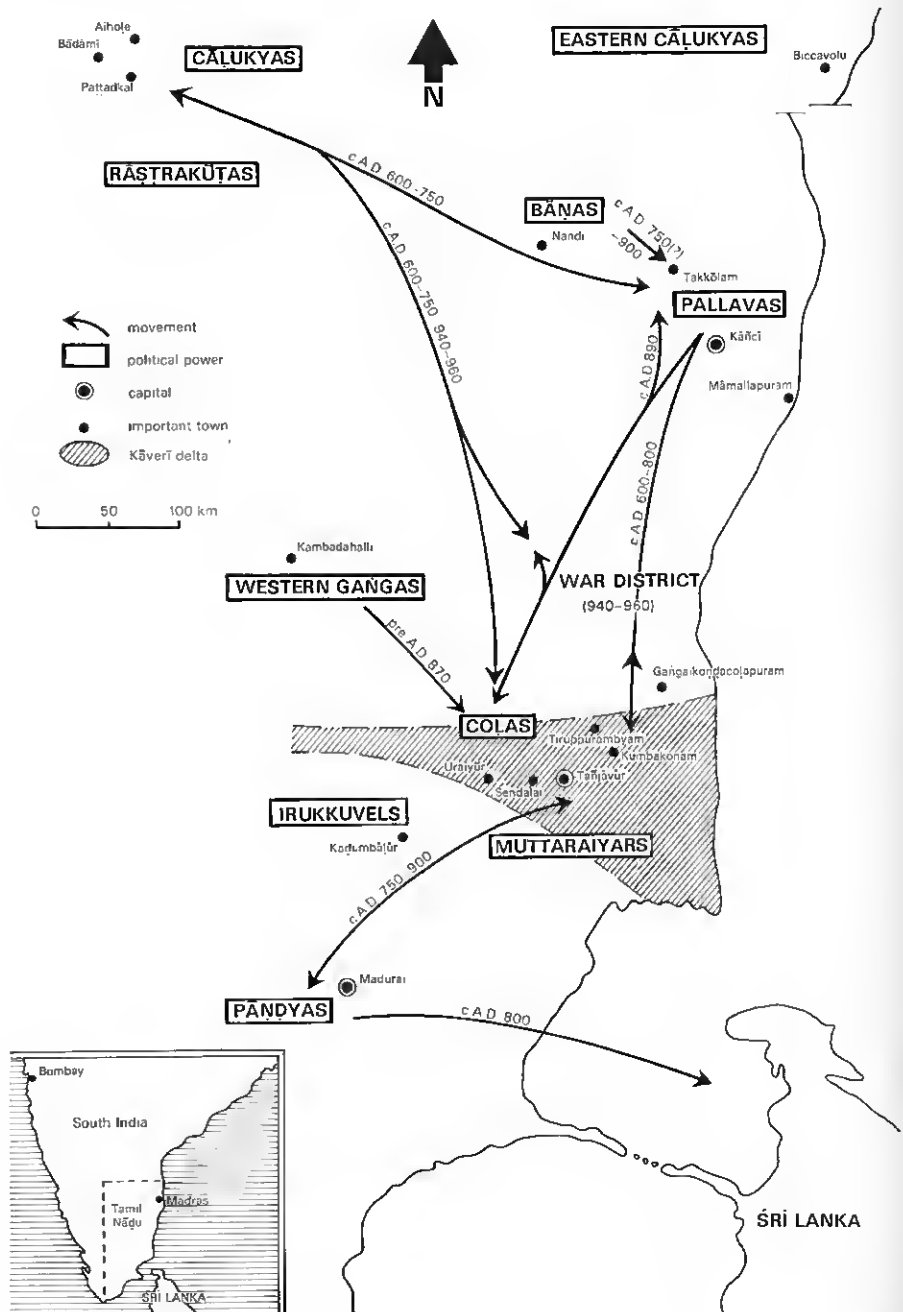
II. Translation of other Sanskrit and Tamil terms used in our text.

abhiṣeka	sacred bath
anicut	weir
caturvedimaṅgalam	"four-vedas-settlement"
Coḷamaṇḍalam or Coḷanāḍu	region inhabited by the Coḷas(Kāverī area)
devādasī	temple dancer
dikpālas	eight guardian deities
Garuḍa	vehicle of Viṣṇu
ekadaśa	eleven
Nāḍu	country
nagara	merchant village
pradakṣiṇa	circumambulation, ambulatory
ṛṣi	saga
Sapta Mātṛkās	the seven mothers(consorts of Brahmā, Viṣṇu, Śiva etc) worshipped together in a separate chapel
śāstra	manual
sthāpati	architect
Taluk (Tamil)	part of a district
Toṇḍaināḍu	area coinciding more or less with present
Toṇḍaimaṇḍalam	North Arcot and Chingleput Districts
Trimūrti	Brahmanical triad: Brahmā, Viṣṇu, Śiva
ur	village or town

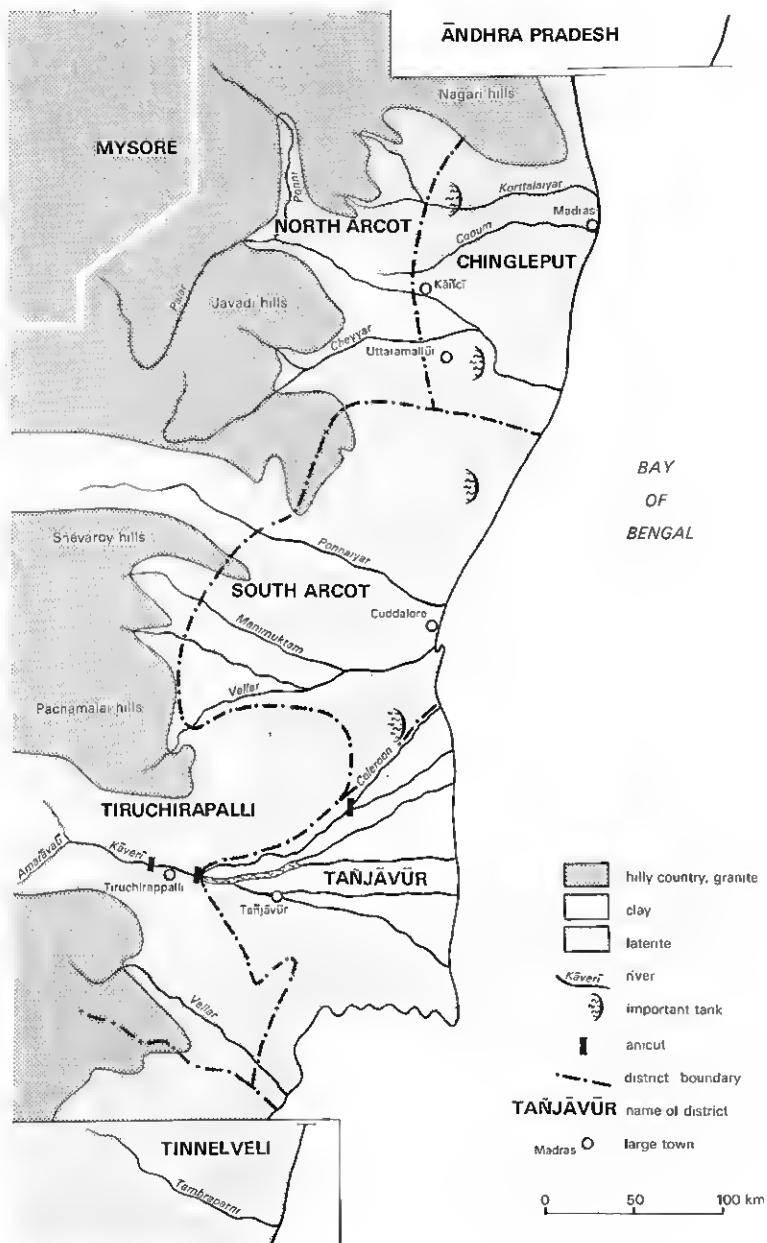
- 1) At one time the terms upāna and upapīṭha seem to have indicated the same moulding(s). In an inscription referring to the Śrī vimāna at Taṇjāvūr, for instance, it denotes the entire structure from "the upāna to stūpī" (from the upapīṭha to the stūpī). Cf. Krishnan, p. 307. See also Balasubrahmanyam's long explanation with regard to the vagueness of these terms(1966, p. 264).

Maps

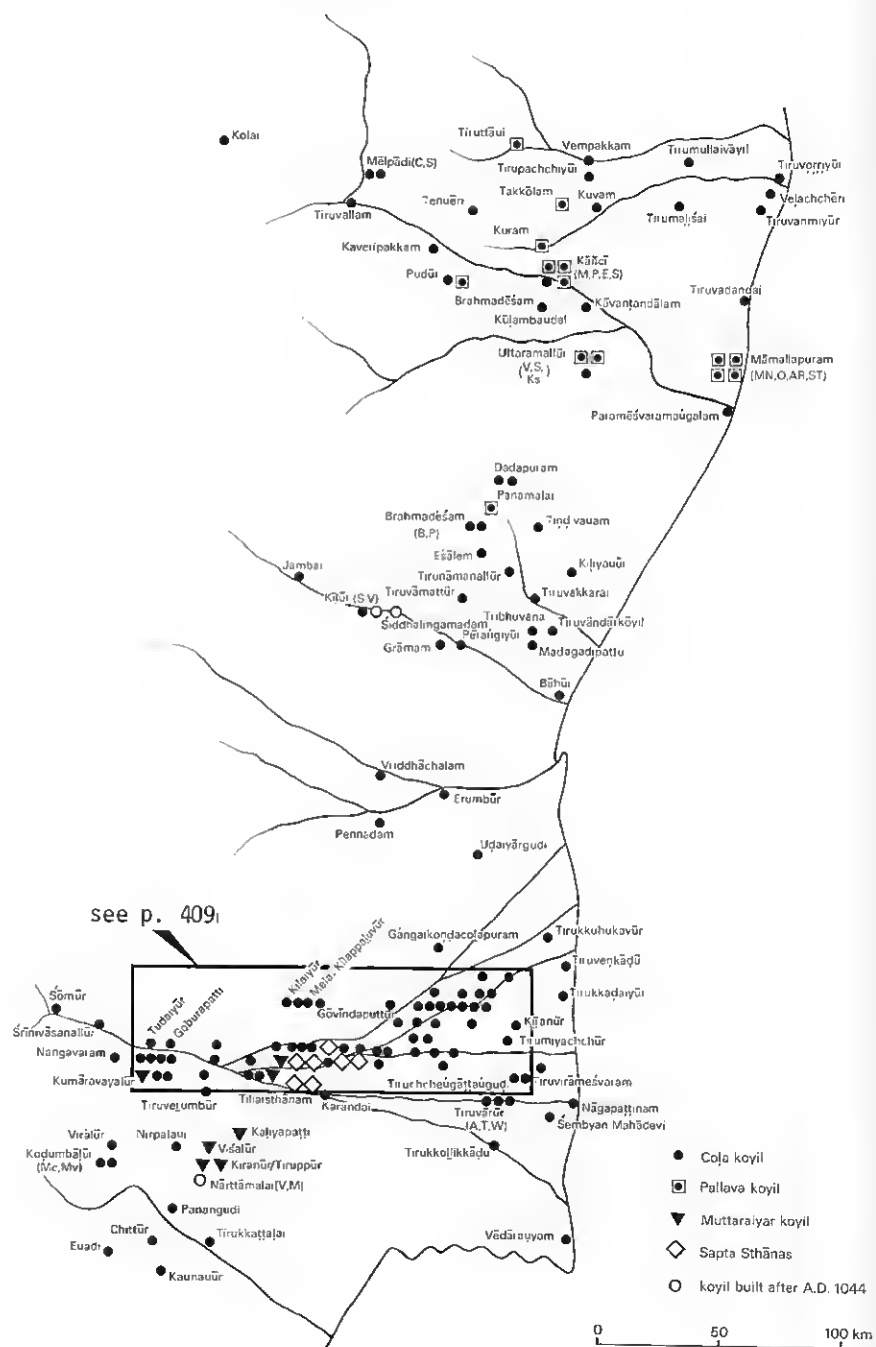
MAP 1. Major political movements in South India between ca. A.D. 600 - 900



MAP 2. Eastern part of Tamil Nāḍu, topography and boundaries.



408



MAP 4. Example of a computer map showing the distribution of śikharas.

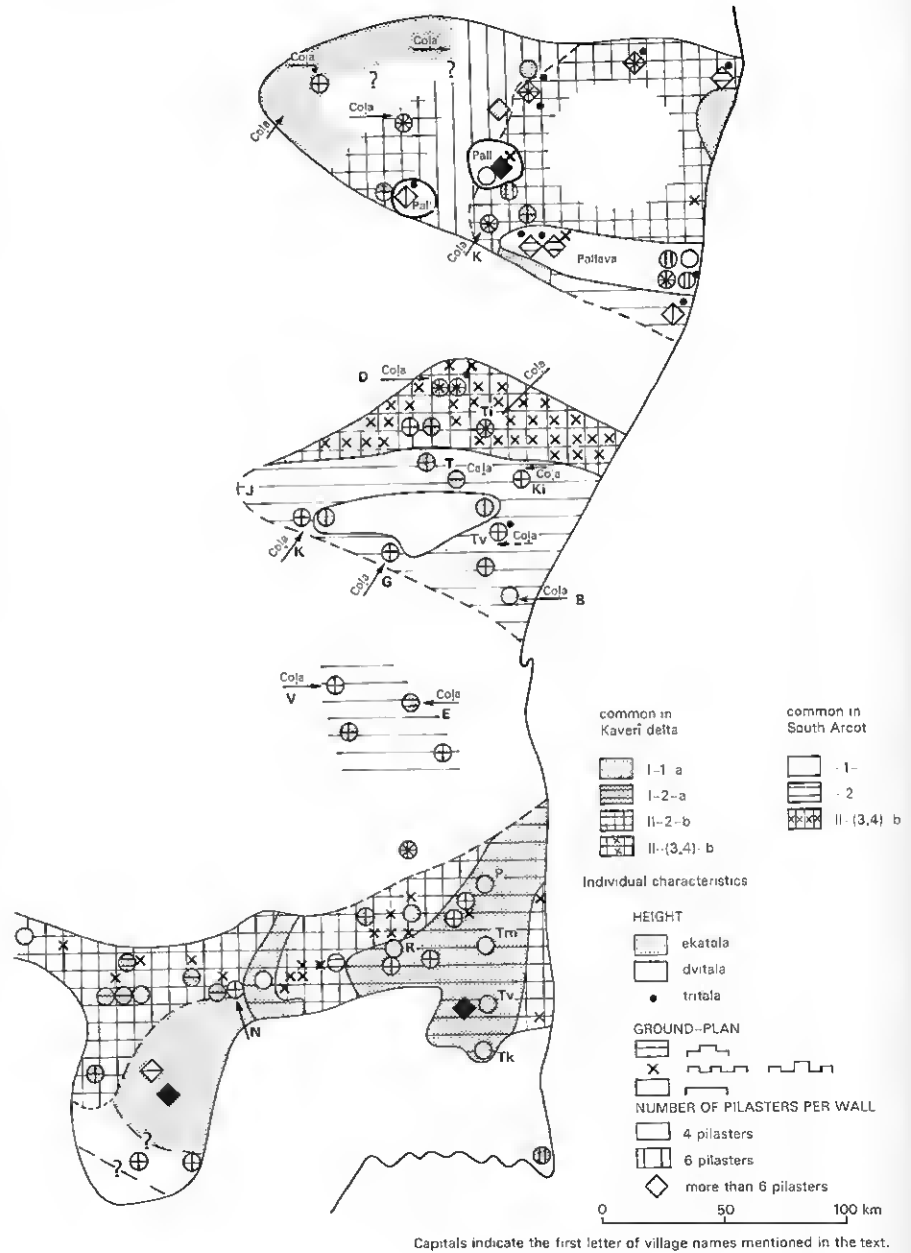
TEMPLES
ASPECT NR. 1 37

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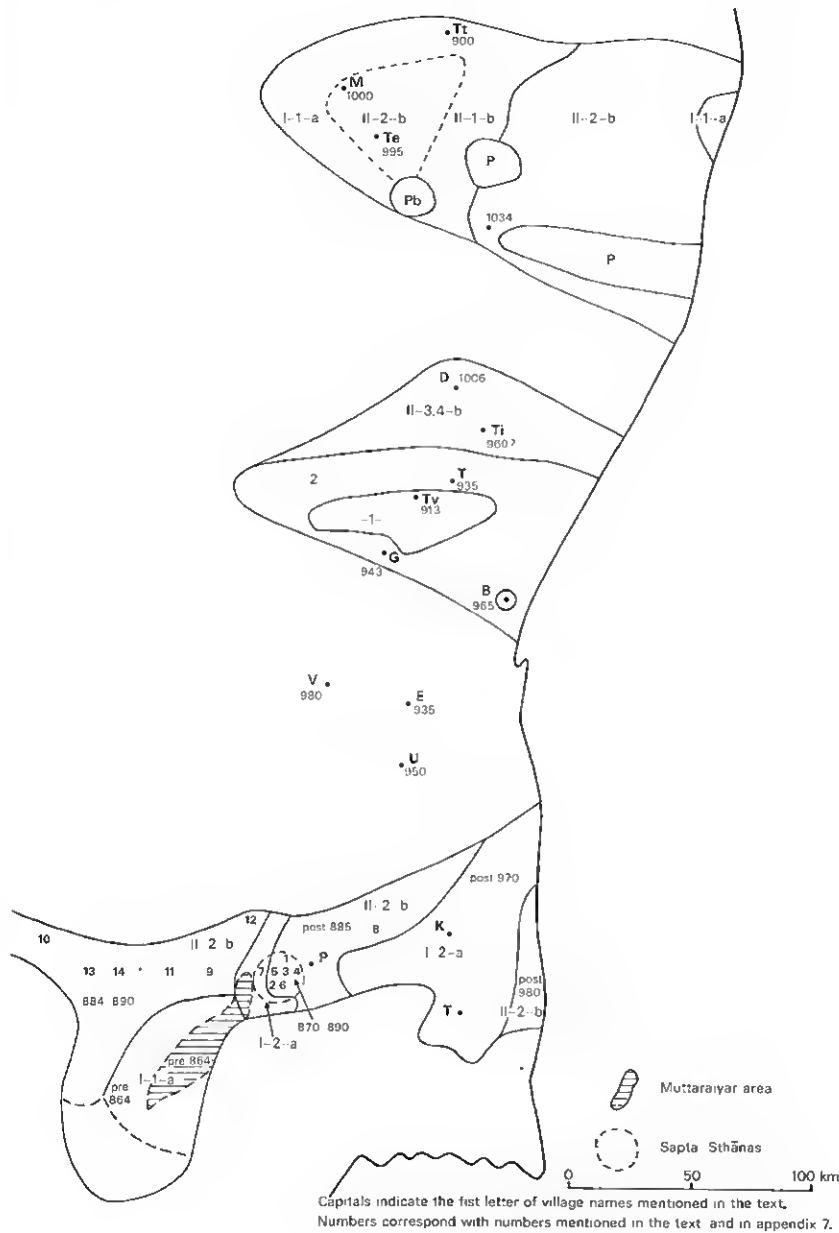
- 1 round śikhara
2 square śikhara
3 apsidal śikhara
4 octagonal śikhara
9 demolished or
renovated śikhara

MAP 5.

Distribution of the ground-plan variants of vimāṇas.

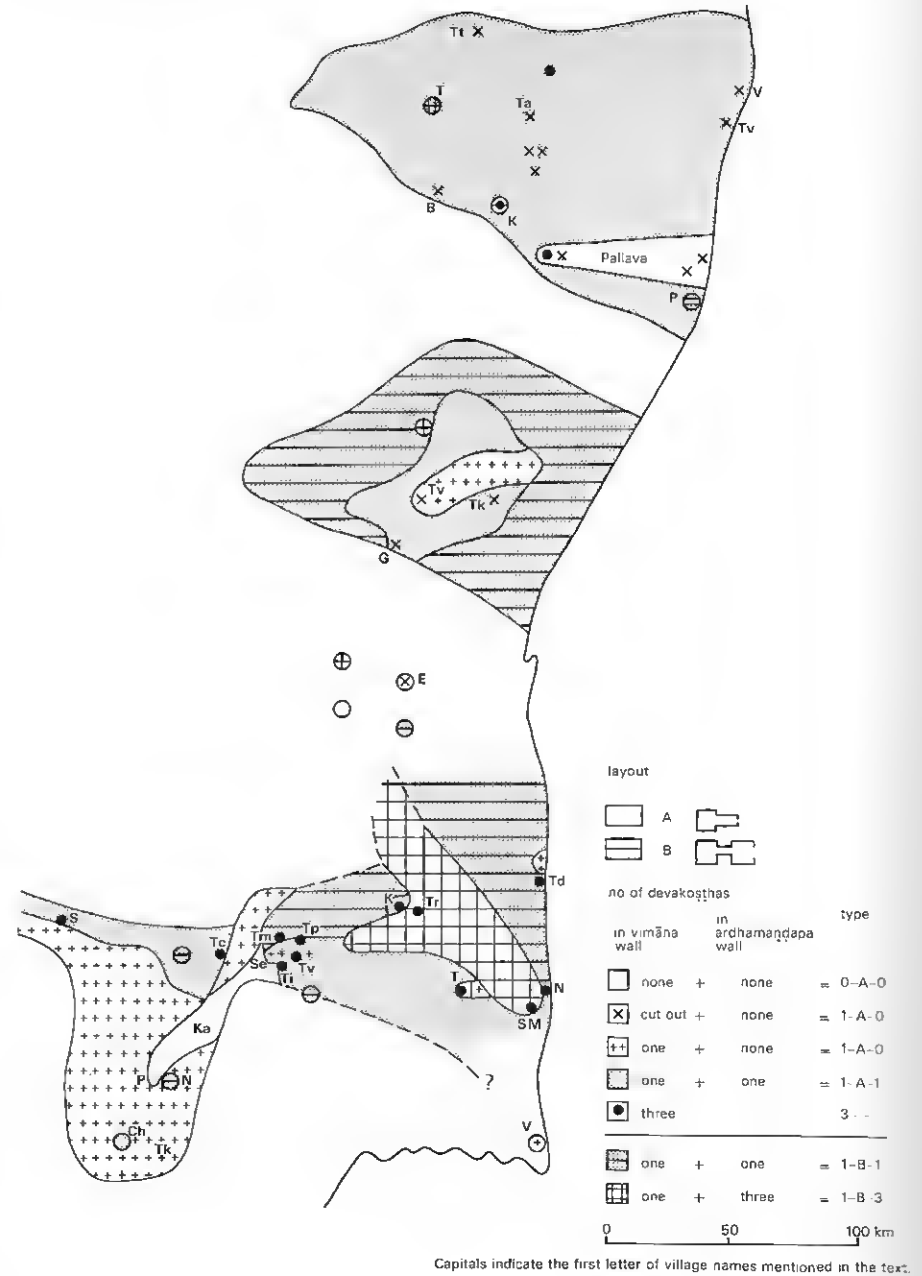


MAP 5A. Chronology of the regions based on the distribution of the ground-plan variants of the vimānas and on inscriptional evidence.



MAP 6.

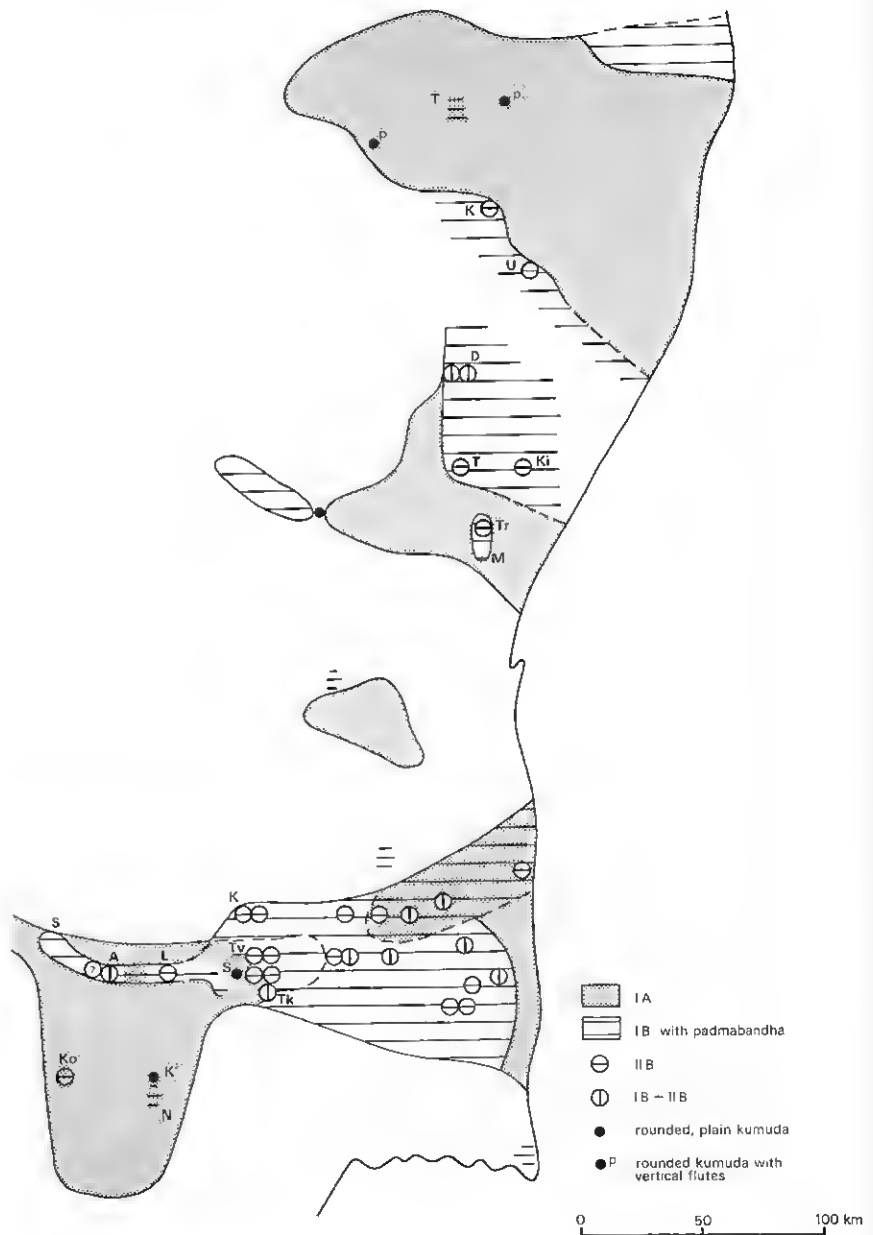
Distribution of the complete temple layouts in combination with the sum total of devakoṣṭhas in both the vimāna and the ardhamandapa.



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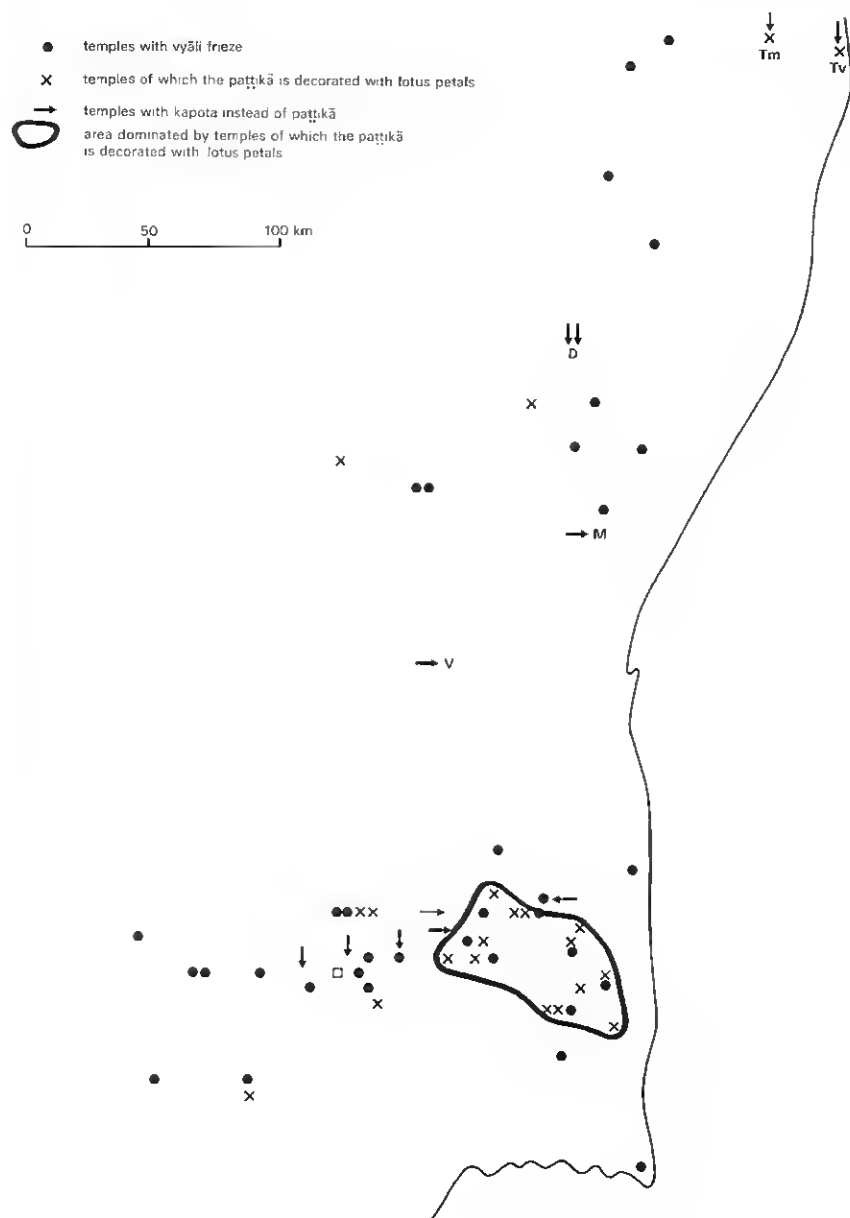
MAP 7.

Distribution of the variants of the jagatī and kumuda.



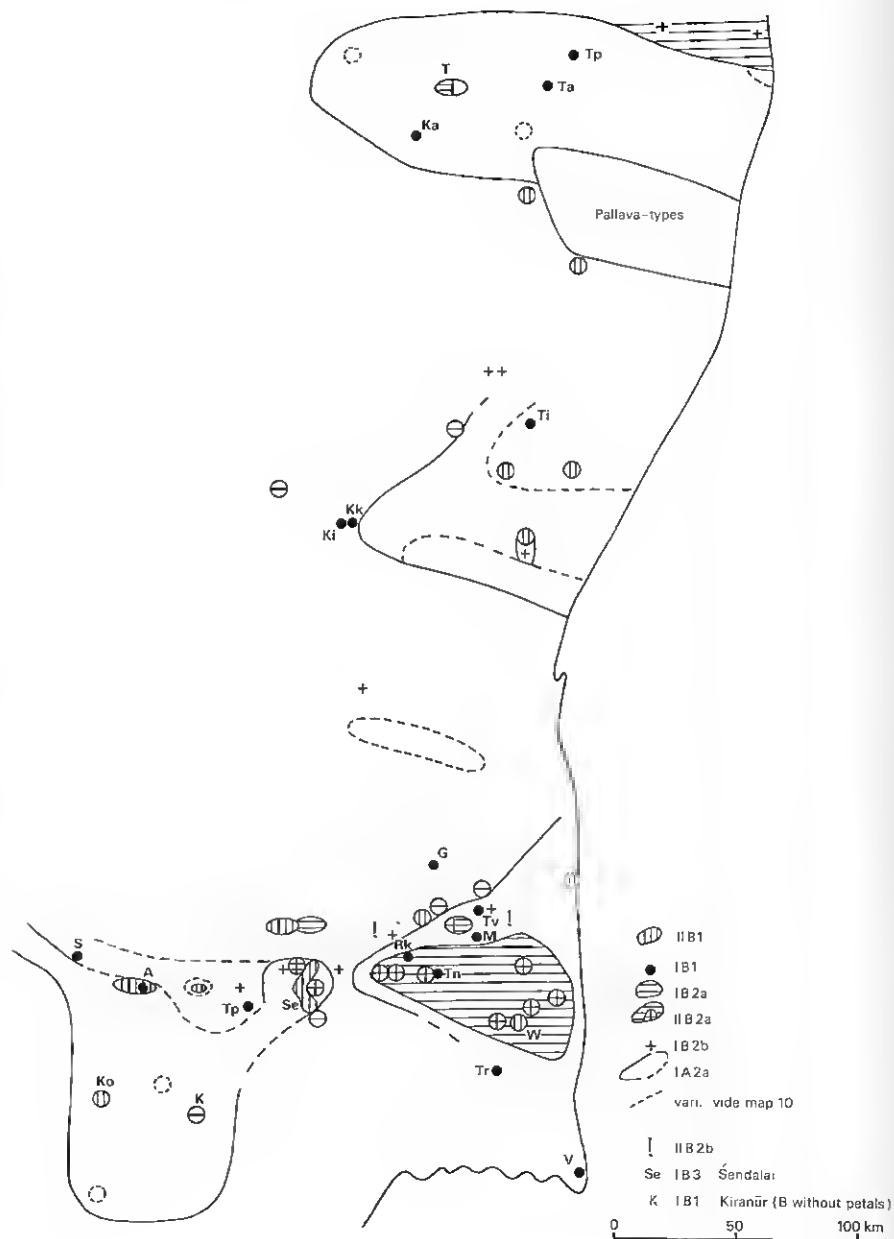
MAP 8.

Distribution of the vyāli frieze, the kapota and the paṭṭikā.



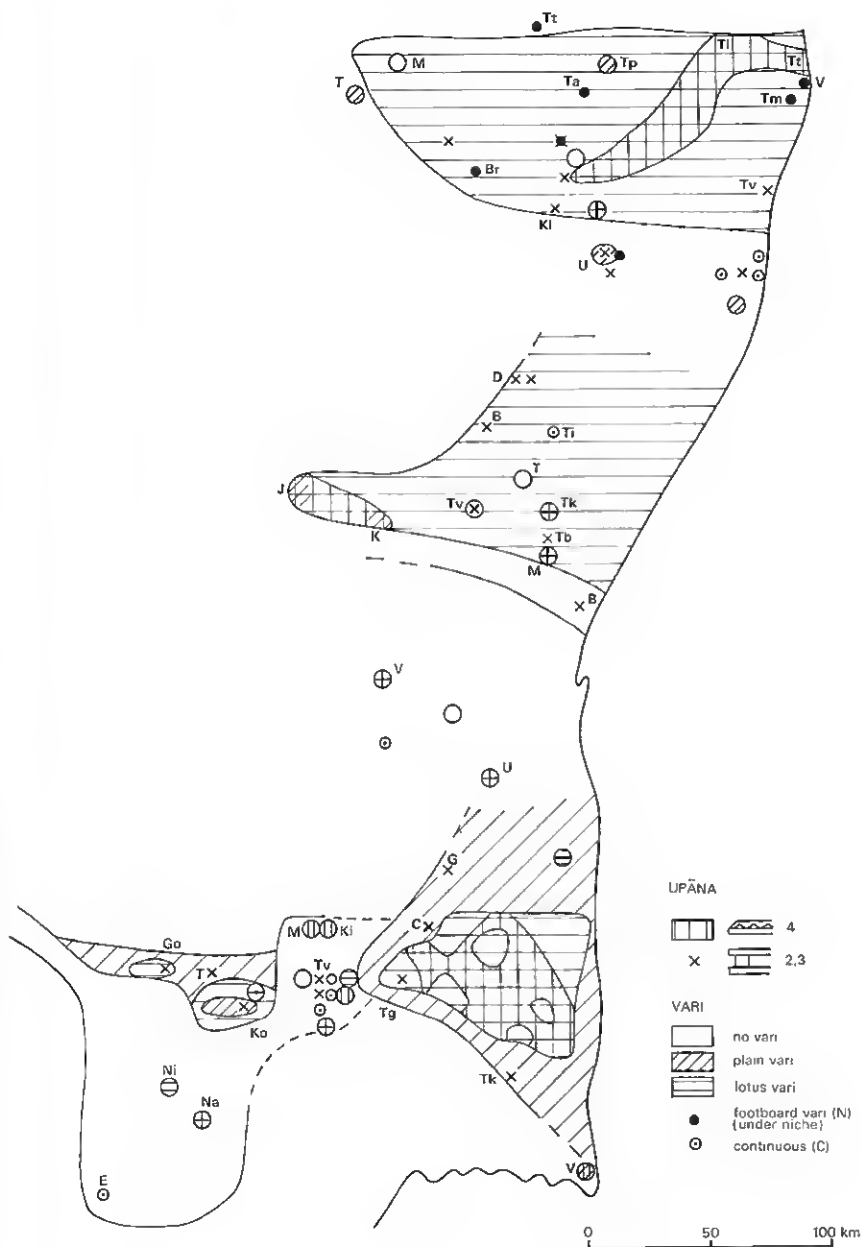
MAP 9

Distribution of the adhiṣṭhāna types.

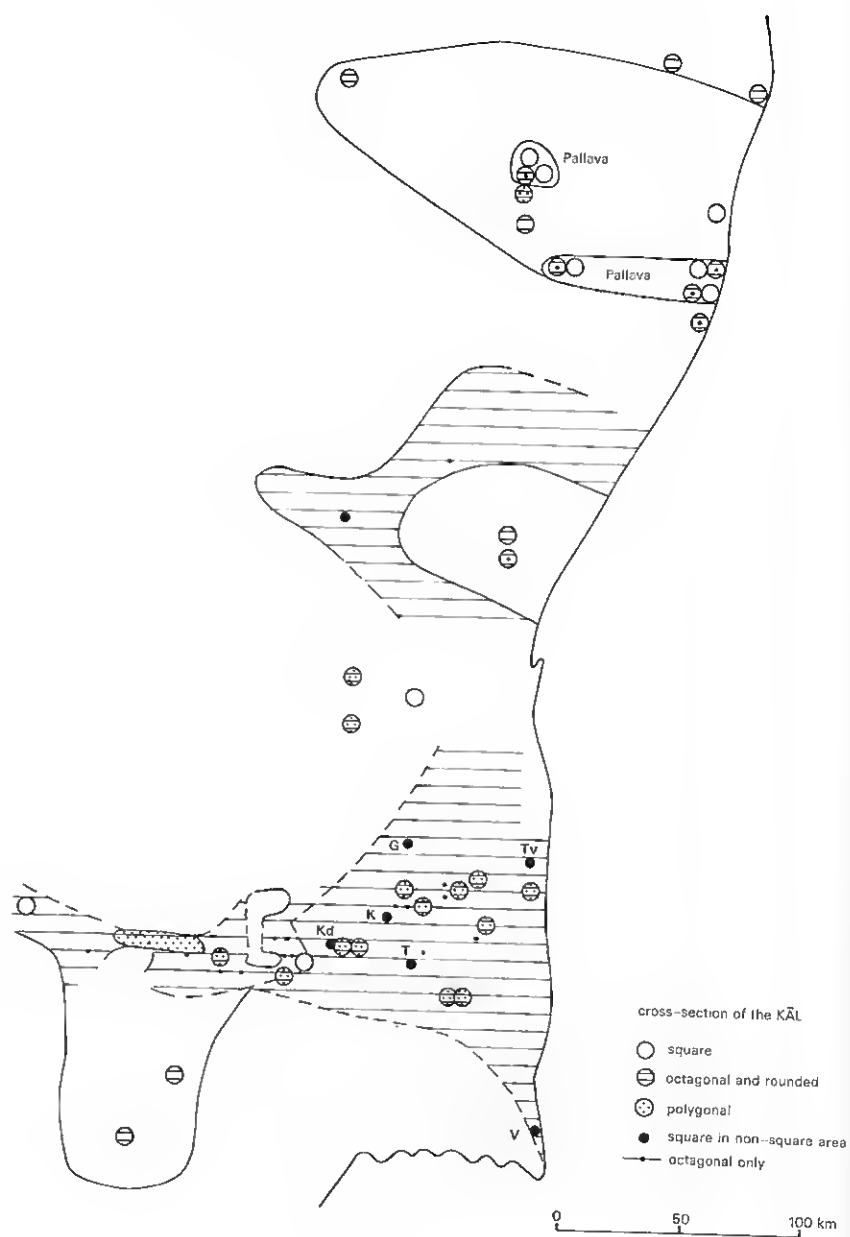


MAP 10

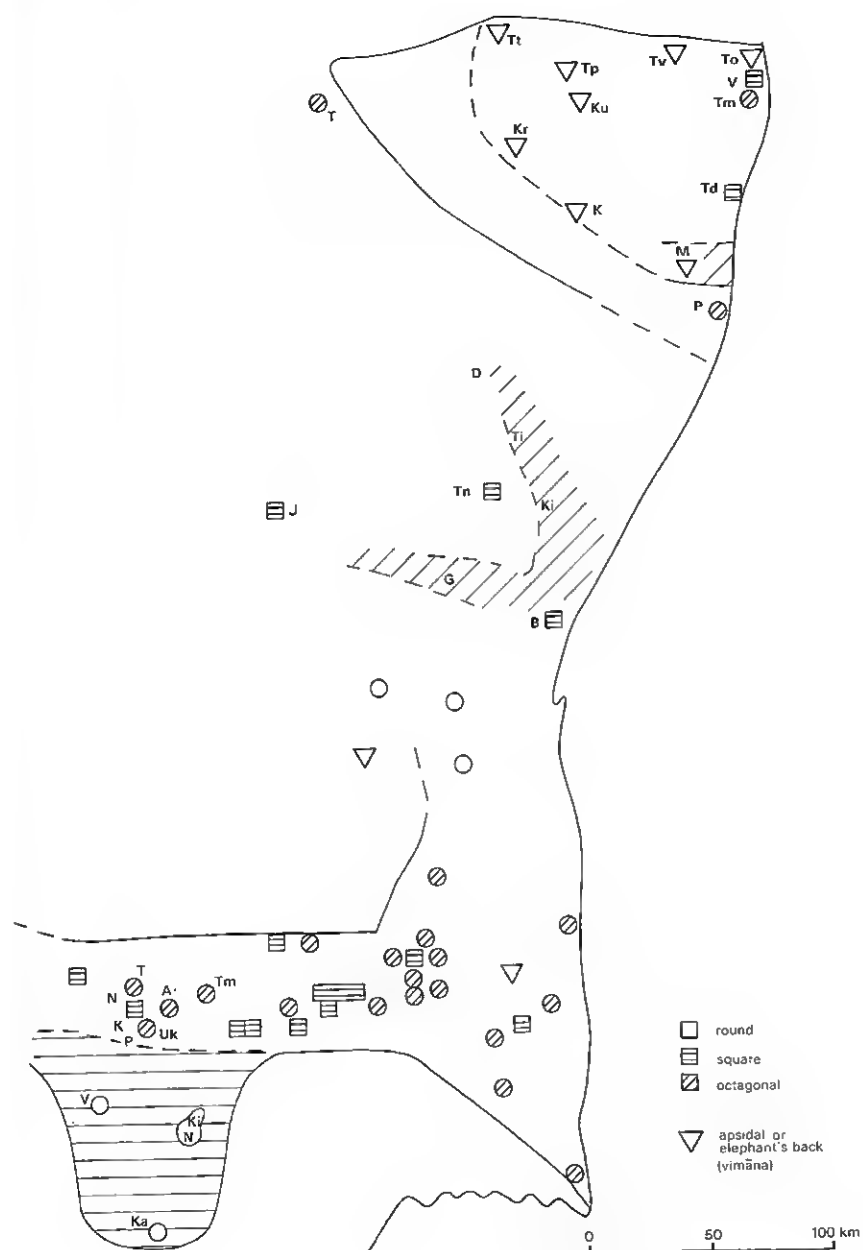
Distribution of the variants of the vari and the upāna.



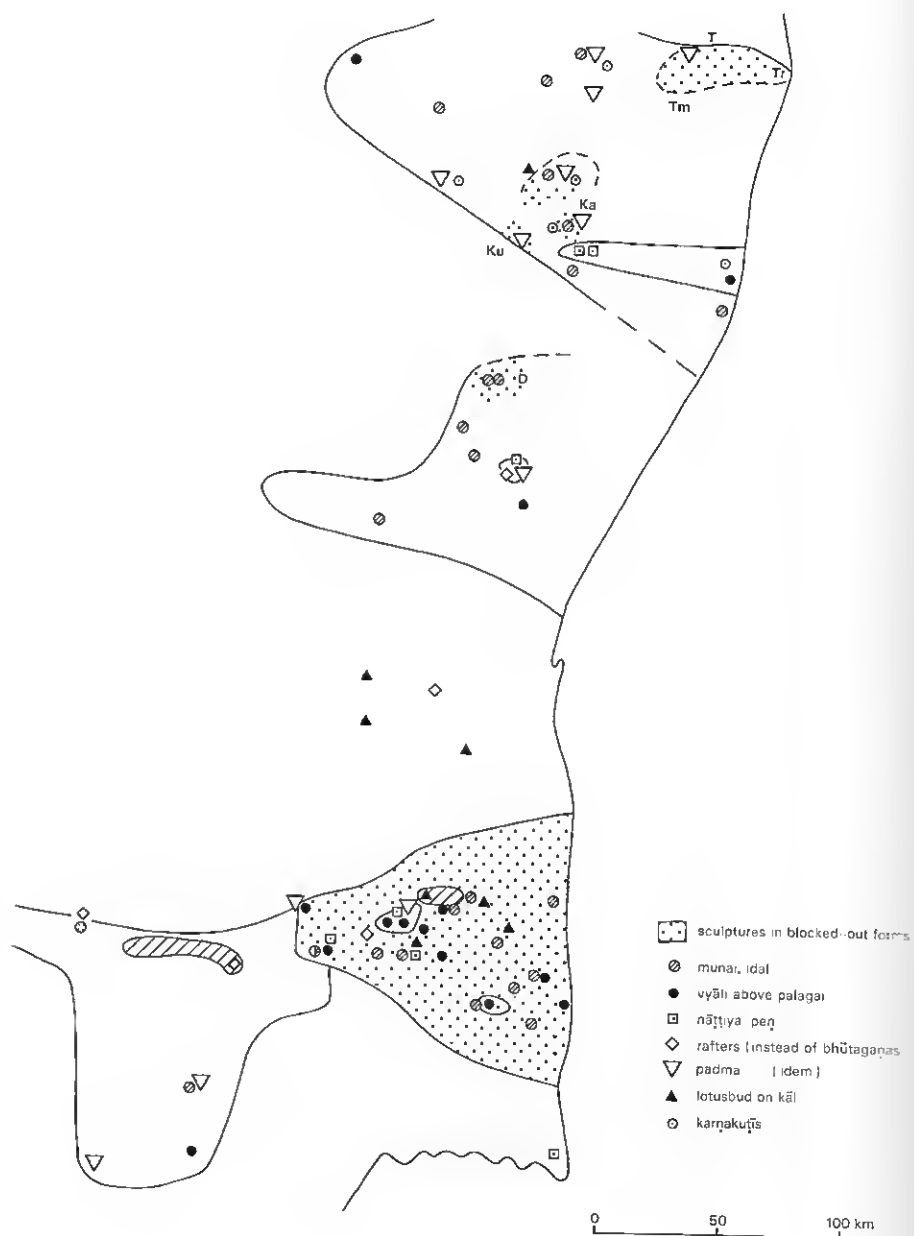
Map 11. Distribution of the variants of the $k\bar{a}l$.



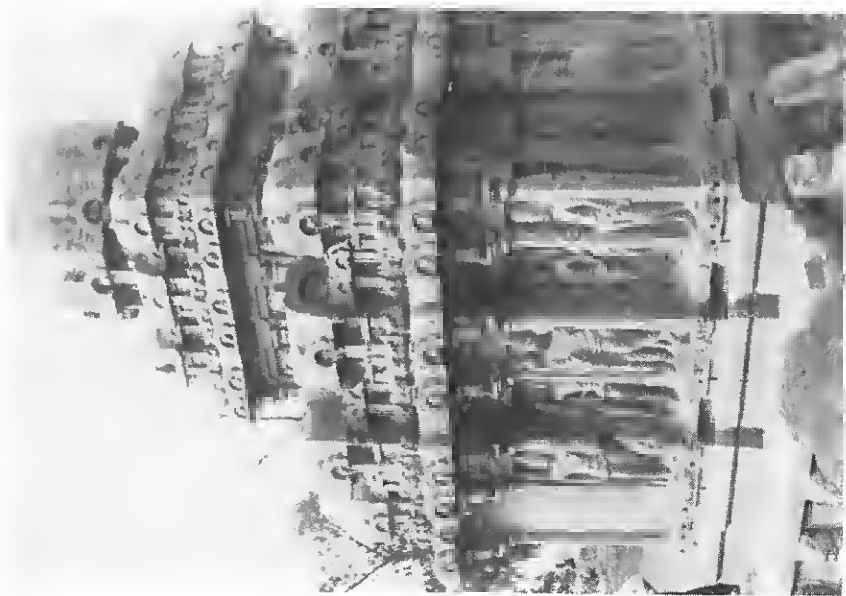
Map 12. Distribution of the variants of the śikhara.



MAP 13 Distribution of the munai, vyālis, nattyā-pens, lateral sculptures, rafters and lotus buds.



Plates



Pl.1 Arjuna Rath, Māmallapuram. View from South-east.



Pl.2 Pīravātaśvara, Kāñcī. North wall.



Pl.3



Pl.4



Pl.5



Pl.6

Pl.3 Kailāsanātha, Kāñcī. Detail South wall.

Pl.4 Shore temple, Māmallapuram. Detail adhiṣṭhāna.

Pl.5 Virūpākṣa, Paṭṭadakal. Detail of pañjara.

Pl.6 Virūpākṣa, Paṭṭadakal. East wall.



Pl.7 Sangameśvara, Pattadakal South wall. Sculptures framing trellised windows; cut-out niches; purely decorative "pilasters".



Pl.8 Mālegitti Śivālaya, Bādāmi. View from East. Note hāra extending over mukhamāṇḍapa; karṇakūṭis on grīvā platform directly connected to śikhara.



Pl.9 Mālegiṭṭi Śivālaya, Bādāmī.
Niche in mukhamāṇḍapa. The
tripaṭṭa kumuda is basically
round; a slightly curved jagatī
ending in a vertical fascia;
uninterrupted vari immediately
above frieze of vyālis which
are spaced regularly. (cf. Pls.
38d, 55b).

Pl.10 Nakkalaguḍi, Biccavolu.
West wall. Adhiṣṭhāna with
kapota and tripaṭṭa kumuda
under central bay, vṛṭṭa
kumuda elsewhere; cut-out
niches; decorative niche
pilasters, type of makara
torāṇa and vari uninterrupted
running along hāra are
comparable with those shown
in Pl.9: no vari above the
base. (cf. Pls. 23-26).





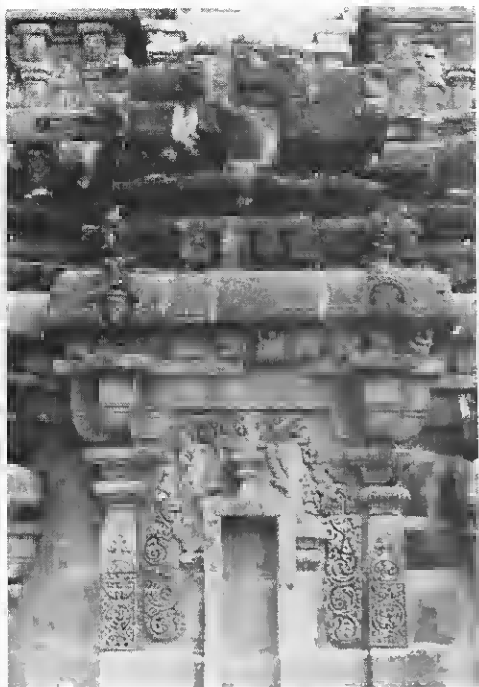
Pl.11 Temple outside village, Biccavolu. East wall. Central niche flanked by two pañjaras being part of the wall and the hāra (Note the elongated śālā).

Pl.12 Rājarājeśvara, Biccavolu. South-east view. Adhiṣṭhāna with kapota, three types of kumudas: multi-bevelled, vṛṭṭa and tripatṭa.



Pl.13 Rājarājeśvara, Biccavolu. Detail West wall: niche. (Note the absence of a vari).





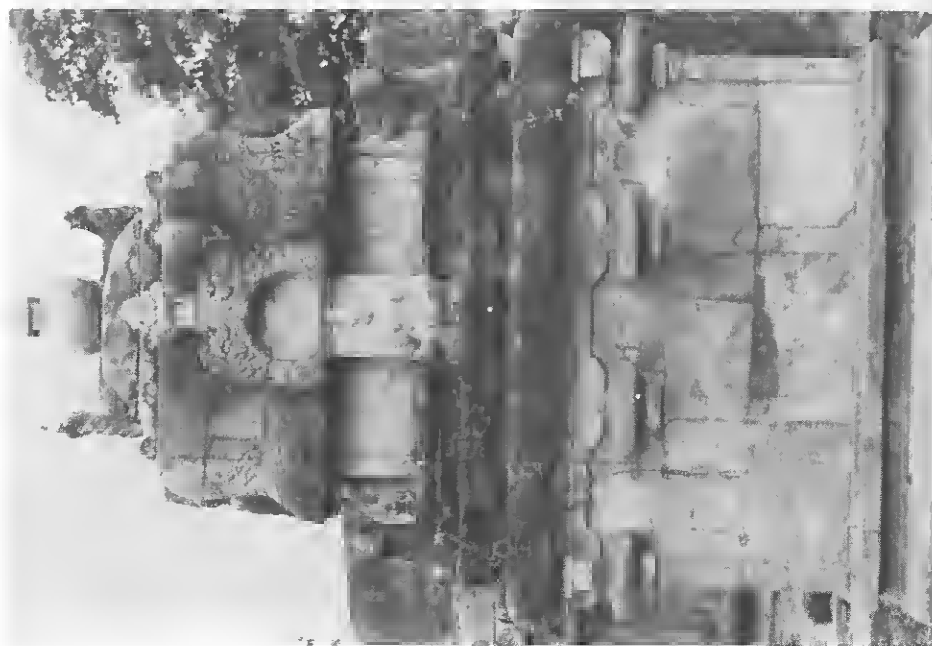
Pl.14 Candrasekharasvamin, Biccavolu.
Detail West wall: niche with makaratarā,
kapota and śālā.



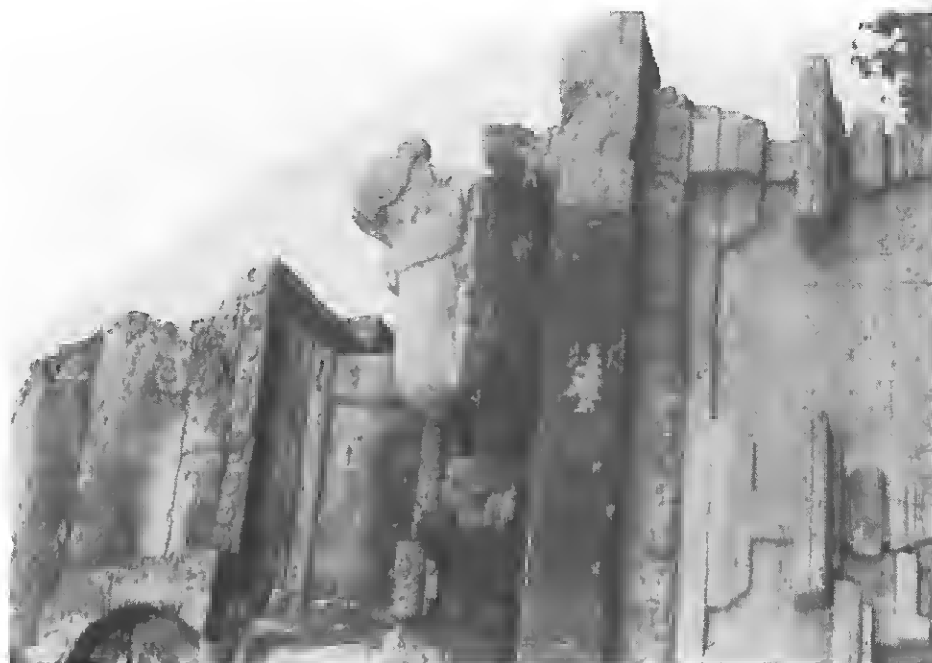
Pl.15. Candrasekharasvamin, Biccavolu.
Detail of pañjara.



Pl.16 Golingesvara, Biccavolu. Detail of South wall:
tripattakumuda under the central niche, a vṛttakumuda
under the other parts, a small ogeed moulding
under the kumuda, pañjaras capped by kūḍas.



Pl. 17 Shriparashuramesvara Temple, Vaidolm. Eastern Wall with Prabhavali



Pl. 18 Arantvelivara Temple, Pambigudi. Eastern Wall with Prabhavali

Pl. 19a Amman shrine in the compound of the Gaṅgaikoṇḍacoleśvara, Gaṅgaikoṇḍacolapuram. View from South-west. Note high upāna and T-shaped podigai.



9b Amman shrine in the compound of the Gaṅgaikoṇḍacoleśvara, Gaṅgaikoṇḍacolapuram. South wall. Note kumbhapañjaras, image of standing Gaṇeśa in niche of antarāla; three niches in ardhamandapa, lateral niches covered with kapotas instead of makaratoranas.



Pl. 20a Gaṅgaikoṇḍaśvara, Kūḷamandal. South wall. Building consists of a vimāna, antarāla, ardhamandapa, second antarāla and mukhamandapa. Note karṇakuṭṭis, grīvā platform, canopy above image of Dakṣiṇāmūrti; kapota on every part of the wall.



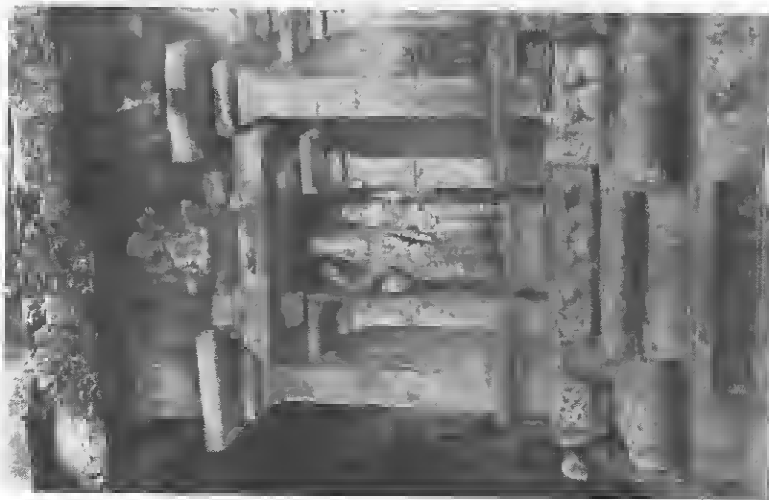
Pl. 20b Gaṅgaikoṇḍaśvara, Kūḷamandal. Detail of North wall. Note high archway, drup-like prabhavali, lateral niches and bell-shaped kapota.



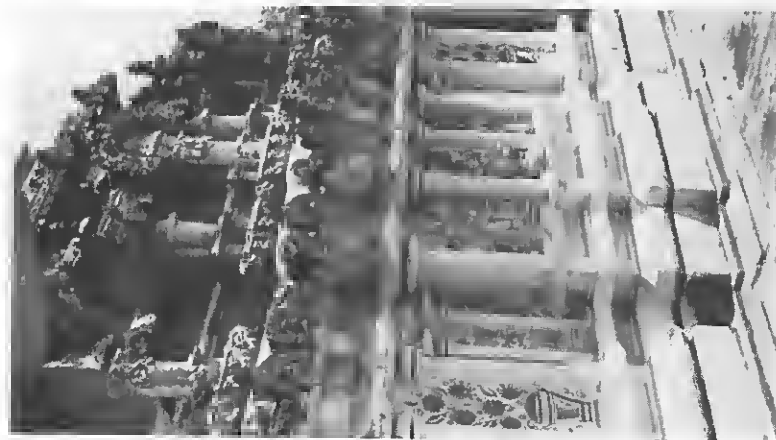
Pl.21a Vālīśvara, Tiruvālīśvaram. Detail superstructure. Note full-fledged grīvā niche, vertical fascia of kapotas, friezes of running animals, kūdus with inner circle above vertical fascia of kapota, siṃhamukhas and rosettes crowning kūdus.



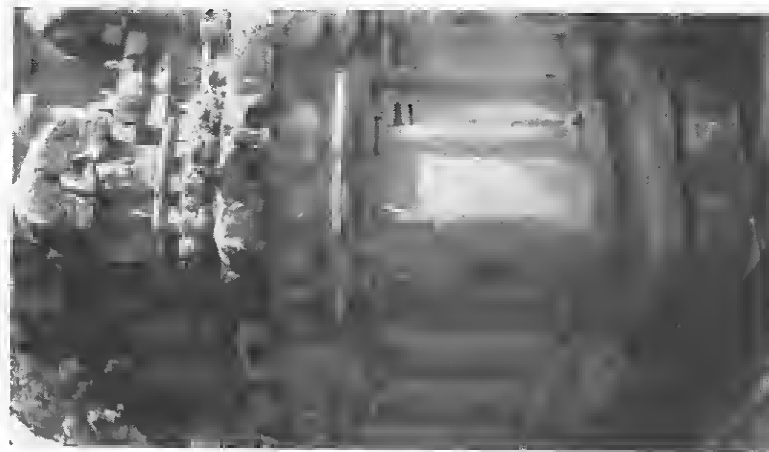
Pl.21b Vālīśvara, Tiruvālīśvaram. Detail makaratoraṇa.



Pl. 22 Amman shrine, Gaṅgaikoṇḍaḥpuram. Note raised border of circles on kapota; T-shaped po-diṣai, lotus upāna as well as high upāna under ardhamaṇḍapa niche (cf. pañjaras Pls. 37, 38a).



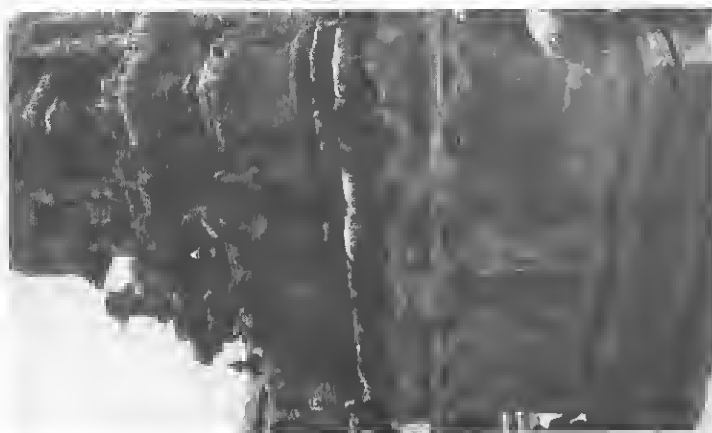
Pl. 23 Āpatsahāyeśvara, Tiruppalanam. Pl. 24 West wall. Note lateral niches cut-out central niche, round pilaster-pair in śālā wall.



Pl. 24 Gṛta-sthāneśvara, Tikkaiśthānam. West wall. Note lateral niches without makaratoranas, two tiny pañjaras between karuṇakūṭis and śālā, round-pilaster-pair on wall of 2nd sala partly hidden behind band.



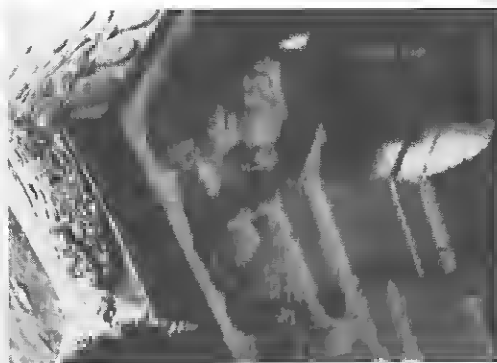
Pl.25 Vedapurīśvara, Tiruvēdikkudi.
North wall. Note lateral niches,
well developed makaratorāṇa, pañ-
jaras in śālā wall, dvārapālas
flanking śālā on 2nd tāla.



Pl.26 Odavanesvara, Tiruchchatturai.
West wall. Note lotus upāna,
clumsy makaratorāṇa, round pil-
laster-pair on wall of 2nd tāla.



Pl.27a Pañcanādiśvara, Tiruvaiyāṟū.
Kudus and bhūtagaṇas.



Pl.27b Pañcanādiśvara, Tiruvaiyāṟū.
Detail podigai. Note absence
of groove; kapota.



Pl. 28 Virāṭaneśvara, Tirukkandiyūr.
North wall. Note makaratorṇas
dvārapālas flanking protruding
section of 2nd tala, śālā as
tall as karnakūṭis (cf. Pl. 25).



Pl. 29a Puṣpavaneśvara, Melatiruppūn-
durutti. North wall. Note pra-
ñāla partly in upāna, partly
in jagatī.



Pl. 29b Puṣpavaneśvara, Melatiruppūn-
durutti. Niche in North wall.
Note lintel decorated with lo-
tus-petals and tiny podigais
between lintel and virakāṇṭha,
groove in throat of podigai.



Pl. 30 Nāgeśvara, Kumbakonam. West wall. Note lateral niches with tiny makaratoranas, position of worshippers.



Pl. 31a Koranganātha, Srīnivāsanallūr. South wall. Note protruding sections flanking central niche and sculptures on either side of Dakṣiṇāmūrti (cf. Pl. 3).



Pl. 31b Koranganātha, Srīnivāsanallūr. Detail south wall. Original, cut-out niche, is too small to contain image of Bhikṣaṭṭamūrti.



Pl. 31c Koranganātha, Srīnivāsanallūr. West wall.



Pl. 32 Saptarṣiśvara, Lalgudi. North wall vimāna, antarāla and ardhamandapa. Note prajāla in upāna.



Pl. 31d Koranganātha, Srīnivāsanallūr. Detail makaratorāṇa and uttira. Note tiny, brick rafters instead of bhūtagaṇas.



Pl. 33a Agastyesvara, Kilaiyūr. North wall. Note size of śālā with kapota but without vari(cf. Pl. 25).



Pl. 33b Coleśvara, Kilaiyūr. North wall. Note size of śālā(cf. Pl. 33a) with vari interrupted by niche.



Pl. 34 Sādayar Koyil, Tiruchchen-nampūṇḍi. Before restoration.



Pl. 35 Śaḍayar Koyill, Tiruchchennampūḍi. After restoration
View from South-east.



Pl. 35 Śaḍayar Koyill,
Tiruchchennampūḍi.



Pl. 36 Kailāsanātha, Kāñcī. Shrines
along outer prakāra walls.
Note pañjaras in hāra of 1st
tala.



Pl. 37 Mukunda Nayanar, Māmallapuram. Superstructure.
Note pañjaras and vari interrupted by them.
Śikhara partly demolished.



Pl. 38a Brahmapurīśvara, Pullamaṅgai.
View from South-west.



Pl. 38b Brahmapurīśvara, Pullamaṅgai. West
wall. Brahmā and Viṣṇu on either
side of niche containing image of
Liṅodbhava.



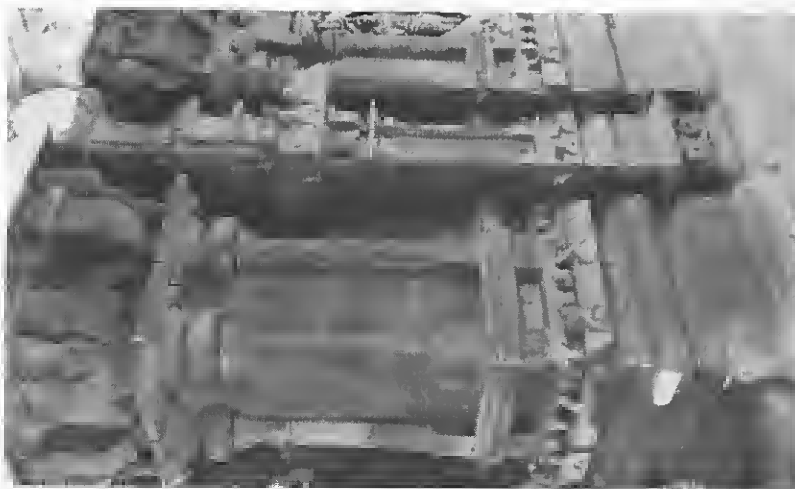
Pl. 38c Brahmapurīśvara, Puḷḷamaṅgai.
Detail of adhiṣṭhāna of pañjara. Its vari remains under vyāli frieze of main building.



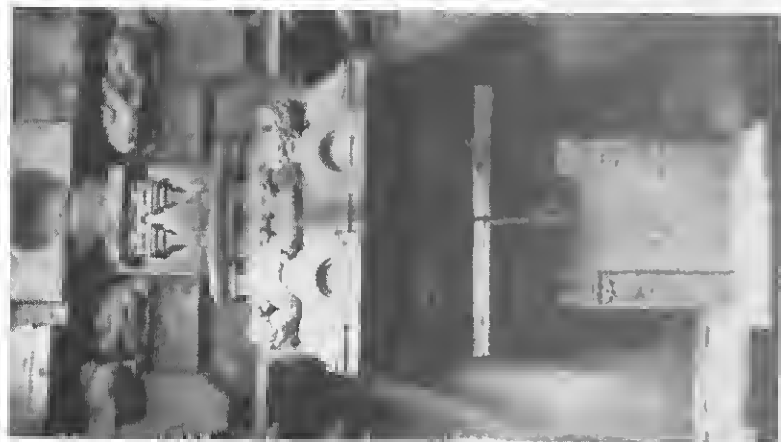
Pl. 38d Brahmapurīśvara, Puḷḷamaṅgai.
Adhiṣṭhāna of vimāṇa and pañjara. Note lotus jagati of pañjara.



Pl. 39 Pipīlīśvara, Tiruverumbūr.
Detail pañjara.



Pl. 40 Sāksīśvara, Tiruppurambyam. View from North-west. Note pañjara, its remarkable plinth consisting of bhūtagaṇas on lotus moulding.



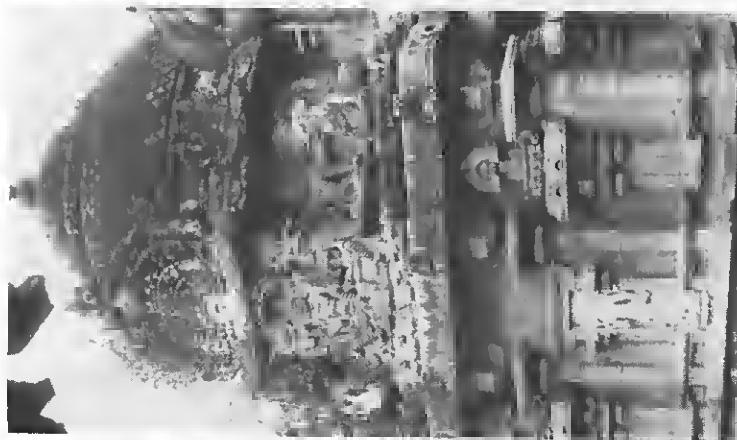
Pl. 41 Gomukteśvara, Tiruvādūtūrai. Detail pañjara.



Pl. 42a Vasīṭṭeśvara, Karandai. North wall. Note pañjaras, cut-out niches to the right of Brahmā and sculptures without niche to the left of Brahmā.



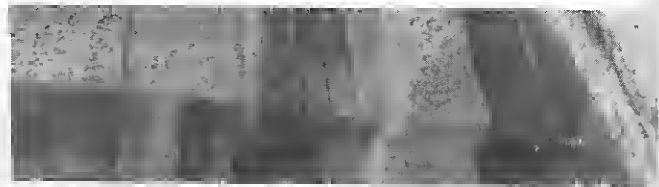
Pl. 42b Vasīṭṭeśvara, Karandai.
Detail North wall.



Pl. 43a Jñānaparameśvara, Tirumayānam
West wall. Note pañjaras
without adhiṣṭhāna.



Pl. 43b Jñānaparameśvara, Tirumayānam.
North wall. Note prajāla in
kumuda.



Pl. 43c Jñānaparameśvara, Tirumayānam. Note paṭṭikā of pañjara. It is almost
in line with that of main building. Kañṇa protrudes only slightly.



Pl. 44 Matsyapūrīśvara, Kōyildēvarāyanpēṭṭai. West wall. Note pañjara crowned by a lotus, inscriptions on the entire wall as well as kapota.



Pl. 45a Viṣamaṅgaśvara, Tudaiyūr. West wall.



Pl. 45b Viṣamaṅgaśvara, Tudaiyūr. Detail pañjara. Note its large kūdu.

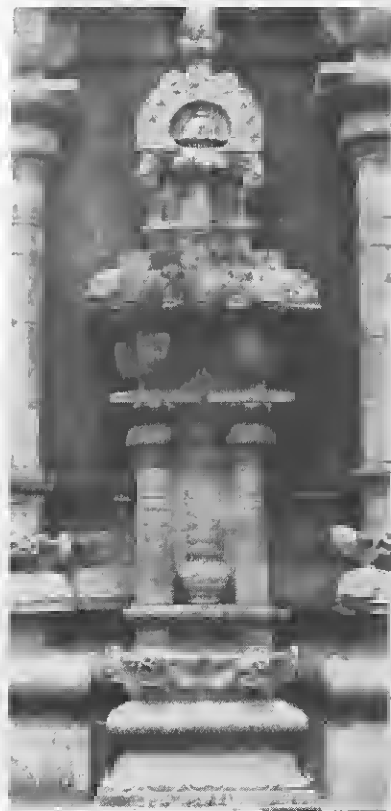


Pl.51 Tirutiṇḍīśvara, Tindivanam. North wall. Note small pañjaras on either side of central niche.

Pl.52a Kundavai Vinnagar Alvar, Dadapuram. View from North-west. Ground-plan and number of talas resemble those of the shrine at Pul-
ḷamaṅgai (cf. Pl. 38a).



Pl.52b Kundavai Vinnagar Alvar, Dadapuram. Detail pañjara: kumbha between pilasters.



Pl.53 Madhuvaneśvara, Tirukkaḷavūr.
Detail kapota over ardhamandapa.



Pl.54 Vedapurīśvara,
Tirukkaliṭṭattai.
South wall.

Pl. 55a Gaṅgājaṭādhara, Gōvīṇḍaputtūr.
North wall. Cf. relatively
simple appearance of this
"citizen" koyil with that of
a royal monument as shown in
Pl. 62a dating from about the
same period.



Pl. 55b Gaṅgājaṭādhara, Gōvīṇḍaputtūr.
Detail connection vimāna to
ardhamandapa (false antarāla).
Note cut-out niche in ardha-
mandapa containing image of
Kālārimūrti. This niche cuts
though inscriptions mentioning
regnal years of Parāntaka I.
Since the Kālārimūrti image
might date as late as the days
Rājarāja I, it looks as if we
are confronted with a situation
in which copied records of Pa-
rāntaka on a shrine attributed
to Uttama Coḷa's reign have
been mutilated (again?) during
Rājarāja's rule.



Pl.56 Ādimouliśvara, Tiruppalturai. North wall.
 Śikhara redecorated in modern times.
 Example of a koyil built with small means.
 (Measurements are out of proportion. The size
 of the vimana allows for a superstructure of
 two storeys. This is obvious when a triangle
 is drawn in which $H:W=1:1$. As it is now,
 the top of the śikhara as well as its stūpī
 remain far under that limit. The height of
 the roof seems to adapt itself to the number
 of pilasters which permit only an ekataḷa
 construction, cf. Fig. 22a, p. 86)



Pl. 57b Pañcanādiśvara, Alḷūr. North wall. Note lotus jagatī under central part of vimāna and under the entire ardhamandapa.

Pl. 58a Agniśvara, Tirukkāṭṭuppalī. View from North-west.



Pl. 57a Pañcanādiśvara, Alḷūr. View from South-east.



Pl. 58b Agniśvara, Tirukkāṭṭuppalī. Cut-out niche in central section of vimāna wall.



Pl.59 Airāvateśvara, Nemam. View from South-west. Note large dvārapāla on wall of 2nd tala (cf. Pls. 25 and 28).



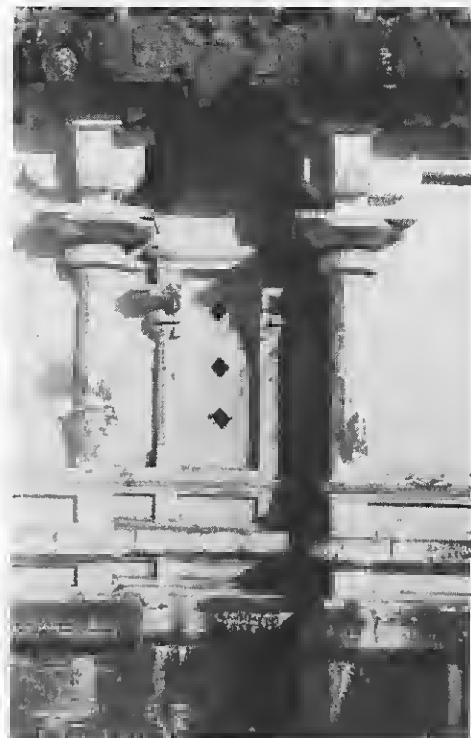
Pl.60b Naltunai Īśvara, Puñjai. Niche of Agastya.



Pl.60a Naltunai Īśvara, Puñjai. South wall. Protruding shrine is a later addition; original vimāna has a square ground-plan.



Pl.61a Anāntheśvarasvāmin, Uḍaiyārgudi.
View from South-east.



Pl.61b Anāntheśvarasvāmin, Uḍaiyārgudi.
Detail false antarāla with niche
and lozenge-shaped holes. Note
decoration of pilaster showing a
goose-shaped protruberance above
square base of kāl.

For Pls.62-64 see pp. 457-459.

Pl.65a Śiva koyil, Pēraṅgiyūr. View from North-west. Note asymmetrical position
of niche and absence of one full-fledged pilaster to the right of niche
in wall of ardhamanḍapa. (For Pl.65b, see p.460).



Examples of the Śembyan Mahādevī style
(Pl.62 A.D.969-985)



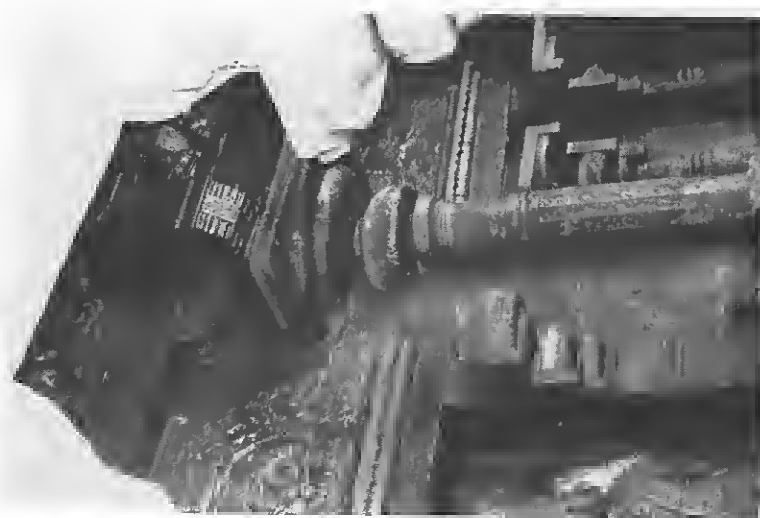
Pl.62a Rāmanātheśvara, Tiruvirāmeśvaram.
North wall.



Pl.63a Amṛtagheśvara,
Tirukkaḍaiyūr.
East wall. Note
four contours in
one and the same kāl.



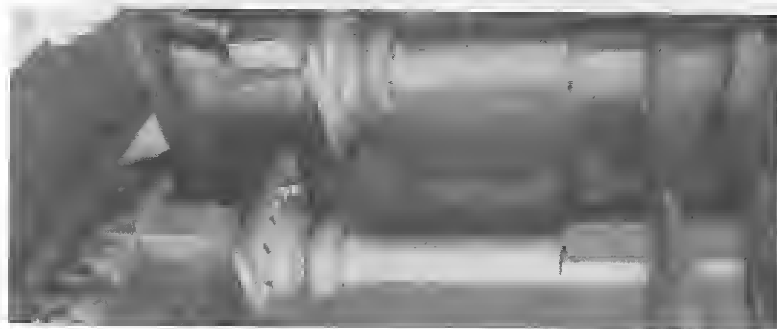
Pl.62b Kṣetrapāladeva, Tiruvalaṅguli. North wall.



P1.63b Amṛtaghaṭeśvara, Tirukkadaiyūr.
Detail devakoṣṭha(L) and blind
niche(R).



P1.63c Śrī-Kapardīśvara,
Tiruvalaṅgūlī.
North wall. Note
rafters above
central bay.



P1.63d Śrī-Kapardīśvara,
Tiruvalaṅgūlī.
Detail kumbha-
pañjara.

Examples of the Śembyan Mahādevī style
(P1.63 A.D. 985-1000)

Examples of the Śembyan Mahādevī style
(Pl. 64 A.D. 1000-1012).

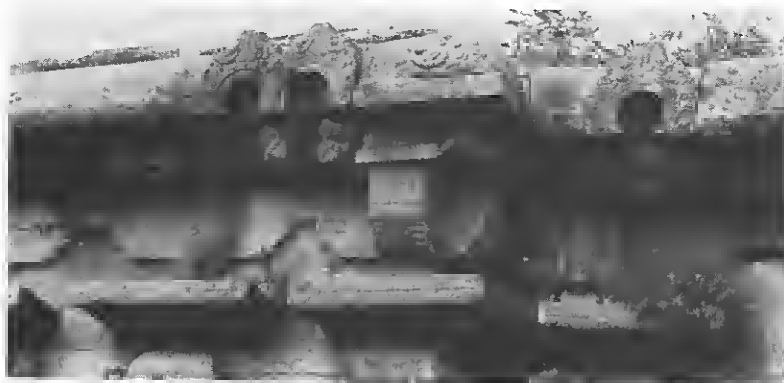


Pl. 64b Uttara Kailāsa, Tiruvaīyāṟū.
Pañjara in wall of false
antarāla. Note the super-
fluous podigais between pil-
asters and makaratoraṇa.



Pl. 64a Uttara Kailāsa, Tiruvaīyāṟū.
Detail niche in southern
wall of ardhamandapa. Image
of Naṭarāja completely
mutilated.

Pl. 64c Mihirāṛumeśvara, Tirumiyach-
chūr. View from North-west.
Note slightly raised po-
sition of kūḍus.



Pl.65b Śiva koyil, Pēraṅgiyūr. Detail connection
vimāna to ardhamandapa. (For Pl.65a see
p.456).

Pl.67 Candramoulīśvara, Tiruvakkarai.
North wall vimāna. Note part of
half-size niche pilasters (L) in
wall of ardhamandapa (hidden
from view by a pillar).



Pl.66 Abhirāmeśvara, Tiruvāmattūr.
North wall vimāna.





Pl. 68a Pañcanādiśvara, Tiruvāṇḍārkōyil. Sout wall.
Note complete frame of central niche in wall
of ardhamaṇḍapa and cut-out niches of un-
equal size.



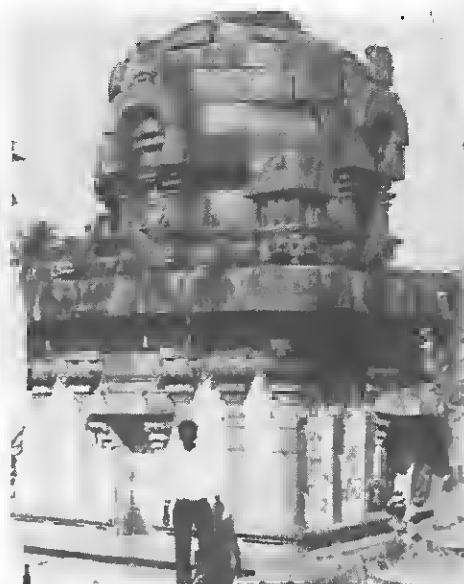
Pl. 69a Tirutindīśvara, Tindivanam.
Detail of adhiṣṭhāna and vari.



Pl. 68b Pañcanādiśvara, Tiruvāṇḍārkōyil.
Cut-out niche containing image
of Bhikṣaṭānamūrti which is too
large.



Pl. 69b Tirutiṇḍīśvara, Tiṇḍivanam.
View from South-east. Note ab-
sence of full-length pilasters
in wall of ardhamandapa.



Pl. 71a Sokkeśvara, Kāñcī.
View from South-west.
(H:W=1:1 and 6 pilasters).



Pl. 71b Sokkeśvara, Kāñcī. Detail prastara.



Pl. 70 Vīraṭṭaneśvara, Tiruttāni. South wall. Note
footboard vari and absence of full-length
pilasters in wall of ardhamandapa.



a)

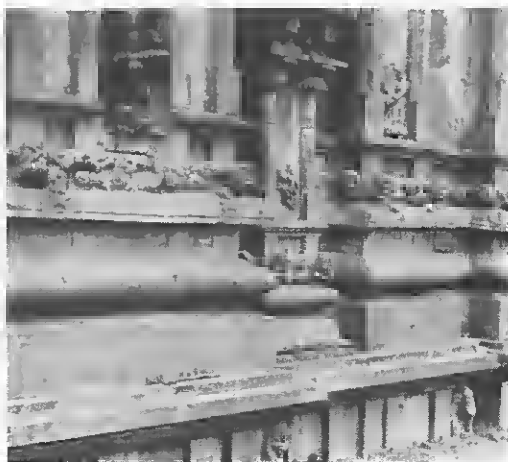


b)



c)

Pl. 72 Examples of an upāna. a) Sundara Varadarāja Perumal, Uttaramallūr; b) Kedaresvara, Uttaramallūr; c) Śrīmūlanātha, Bāhūr; d) Iruvikulamanikka Īśvara, Dadapuram.



d)

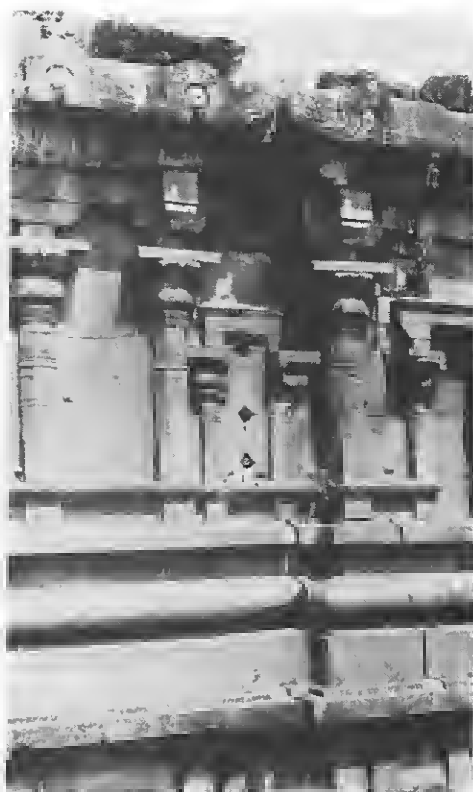
Pl. 74 Śrī Masilamanīśvara, Tirumul-
laivāyil. Detail kumbhapañja-
ra(L) and podigai. Note ele-
gant decoration of pañjara. It
covers a kūdu, kapota and pa-
lagai; all parts supported
by one single pilaster.



Pl. 73 Rājarājesvara, Tañjāvūr. Detail
South wall vimāna. Novelties are
kumbhapañjaras crowned with a
kind of makaratoraṇa; subbase
decorated with a small kapota
and vyāli frieze (partly visi-
ble); T-shaped podigai; predomi-
nance of square kāl; projecting
blocks under lintel of which
function is unknown (perhaps
meant to be worked into some
kind of shape); double kapo-
ta dividing wall into two
parts. Note dvārapālas(R) which
are flanking the four (') en-
trances of the sanctum.



Pl. 75a Pātāleśvara, Brahmadēśam (S.A.).
General view of South walls.
Mukhamāṇḍapa (R) collapsed and
śikhara of bricks.



Pl. 75b Pātāleśvara, Brahmadēśam (S.A.).
False antarāla. Note shape
of kūḍu: slit connects raised
inner circle to vertical
fascia of kapota (cf. Pl. 75b).



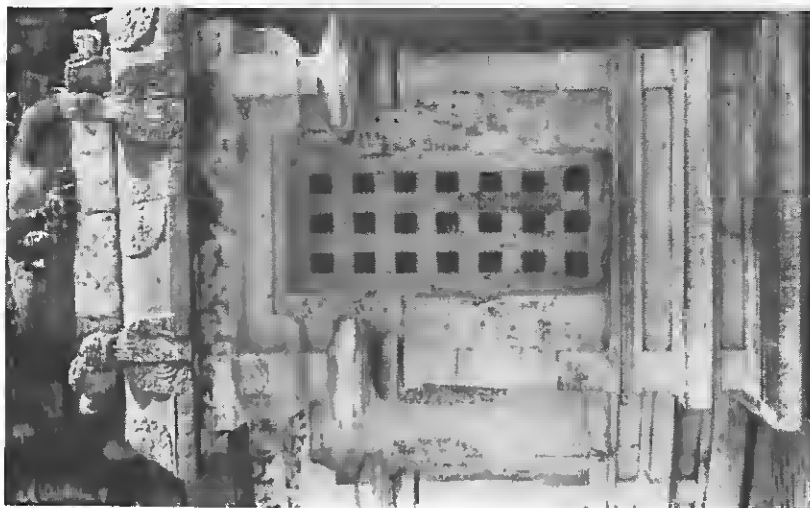
Pl. 75c Vṛddhagiriśvara, Vṛddhāchalam. Detail kapota. Note
shape of Early Coḷa kūḍu (cf. Pl. 75a).



Pl. 76a Varadarāja Perumal, Tribhuvana. General view South wall.



Pl. 76b Varadarāja Perumal, Tribhuvana. Detail adhiṣṭhāna.



Pl. 77 Pralayakāśvara, Pennadam.
Central projection with window.



Pl. 78a Śvetāraṇyeśvara, Tiruveṅkāḍū.
Detail vimāna wall with pro-
truding part in front of Dak-
ṣiṇāmūrti niche added later.
Note the neatly copied and
framed, ancient records.



Pl. 78b Śvetāraṇyeśvara, Tiruveṅkāḍū.
Detail adhiṣṭhāna.



Pl. 79 Agniśvara, Coḷapuram (Tj).
General view South wall.
Note modern extension of
Dakṣiṇāmūrti niche, high
upāna and T-shaped podigais.



Pl. 80a Agnīśvara, Tirukkoḷḷikkāḍu.
West wall.



Pl. 80b Agnīśvara, Tirukkoḷḷikkāḍu.
Detail West wall. Note octagonal kāl.



Pl. 81 Divyajñāneśvara, Kōvilāḍi. West wall. Note octagonal kāl and coarseness of ornamentation.



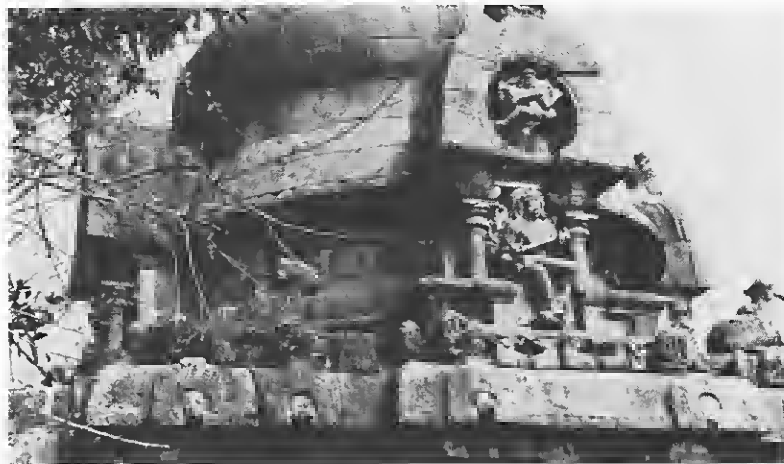
Pl. 82 Tirukandīśvara, Madagadipattu. View from South-west. Note continuation of kapota above west wall ardhamaṇḍapa(L) and strangely shaped ornaments above niches.



Pl. 83b Jambunātha, Jambai. Detail South wall of ardhamaṇḍapa.



Pl. 83a Jambunātha, Jambai. View from South-west. Note connection ardhamaṇḍapa to mukhamāṇḍapa which is a later addition.



Pl. 84a Rāmanātheśvara, Eśālem. Prastara and śikhara.

Pl. 84b Rāmanātheśvara, Eśālem. Detail prastara, śikhara and wall.



Pl. 85a Brahmeśvara, Brahmadēśam(S.A.). South wall ardhamandapa(L), antarāla(R) connecting it to a mukhamandapa which is contemporaneous with sanctum.





Pl. 86 Velladai Īsvara, Tirukkuhukavūr.
North wall. Note square grīvā
platform carrying a round
śikhara.



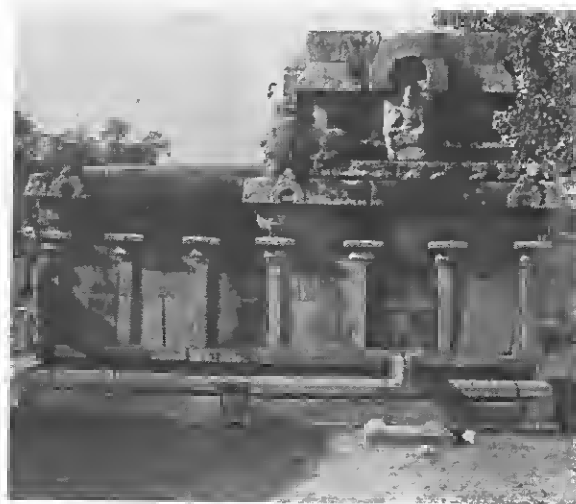
Pl. 87. Vijayālaya Coḷeśvara, Nārttāmalai.
View from West. Note curvilinear pro-
file of inner sanctum ($H:W=1:1\frac{1}{2}$). When
prakara wall is included the vimāna
shows a triangular cross-section
($H:W=1:1$).



Pl. 85b Brahmeśvara, Brahmadēśam (S.A.). Detail South
wall vimāna (L) and ardhamaṇḍapa (R). Note shape
of kūḍus and śiṃhamukhas which are separate blocks
(For Pl. 85a see p. 470)



Pl.88 Subrahmaṇyeśvara, Kannanūr. Detail prastara and grīvā niche(R). Note frieze of running animals without riders(cf.Pl.s.32 and 53); small vertical fascia under border of circles; raised inner circle of kūdu and adjustment of grīvā kaṇṭha to niche.



Pl.89 Siva koyil, Tiruppūr(Tri.).North wall.Śikhara partly demolished.



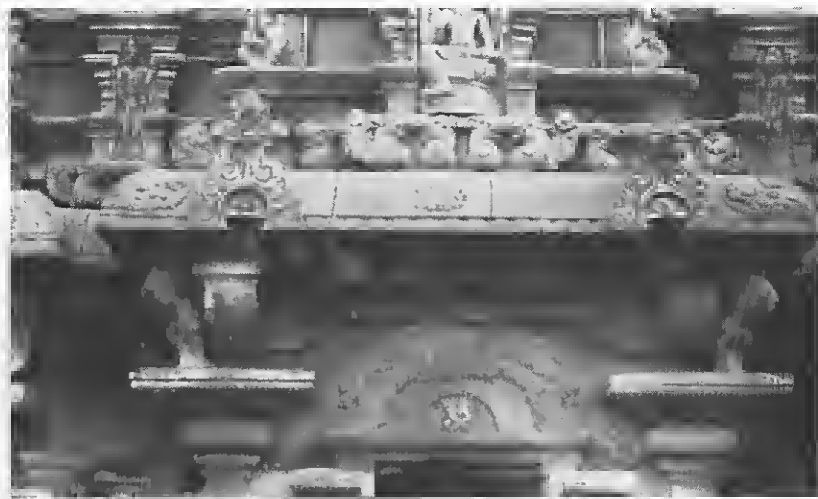
Pl.90a Uttamadanīśvara, Kiranūr (Tri.).
Detail prastara.



Pl.90b Uttamadanīśvara, Kiranūr (Tri.).
Detail wall and adhiṣṭhāna of
ardhamaṇḍapa (L) and vimāna (R).



Pl.91 Bhumīśvara, Virālūr.
View from North-west.



Pl.92a Nāgeśvara, Kumbakonam. Detail prastara and position of vari running along hāra. Compared with the Vāliśvara at Tiruvāliśvaram(Pl.92b) it is obvious that the style of the kūdus, the kapota, the niches in the śālā and connecting walls of the Nāgeśvara is distinctly different from those shown in Pl.92b.



Pl.92b Vāliśvara, Tiruvāliśvaram. Detail prastara and position of vari running along hāra(cf. Pls. 92a and 21a-b).

Pl.93 Mūvar Koyil, Koḍumbālūr.
View from North-west.
Note absence of vari on
walls; size of śālā(cf.
Pls.25,28 and 33a);round
pilaster on either side
of śālā roof(cf.Pls.23,
24 and 26); fully devel-
oped grīvā niche(cf.Pls.
17,25 and 89).



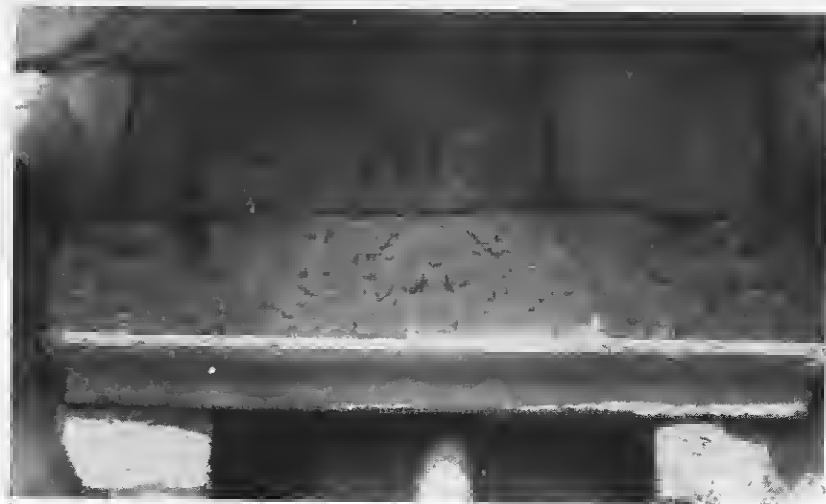
Pl.94a Agnīśvara, Chittūr.
View from South-East
Superstructure dis-
appeared.

Pl.94b Agnīśvara, Chittūr.
Detail connection
ardhamandapa(L) to
vimāna(R):palagai of
pilaster(L)slightly
higher than those of
vimāna.

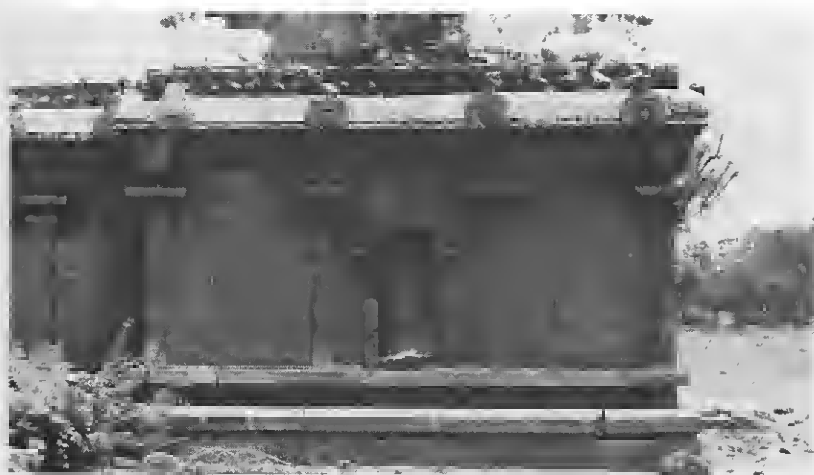




Pl. 95a Kailāsanātha, Alambakkam.
View from North-west.
Note large, wide open
kūḍus.



Pl. 95b Kailāsanātha, Alambakkam.
Detail makaratorāṇa. Note its workmanship and podigais
under lintel.



Pl.96 Śomaśvara, Śōmūr. View from South.



Pl.97 Agastyeśvara, Perungudi.
West wall.



Pl.98 Śiva Koyil, Vempakkam(in
Poinsee Reservoir and
normally under water).South
wall. Śikhara of brick.



Pl. 99a Colesvara, Kavanandalam.
South wall ardhamandapa.



Pl. 99b Colesvara,
Kavanandalam.
Details of kals.



Pl. 100 Sokkesvara, Kancī. Partly
collapsed South wall of
ardhamandapa.



Pl. 101 Śiva koyil, Pudūr (N.A.).
West wall



Pl. 102a Airāvateśvara, Dārāsūram. General view from West. Note kumbhapañjaras in recesses; Early Coḷa niches in lateral bays and Late Coḷa type of niche in central bay decorated with kapota and śālā; kāl contours: O, R, M and S.

Pl. 102b Airāvateśvara, Dārāsūram. Detail Late Coḷa niche in ardhamandapa. Note exuberance of lateral sculptures on 1st tala and hāra; beginnings of elaborate, ogeed podigai.



Pl. 102c Airāvateśvara, Dārāsūram. Detail Early Coḷa base (11B2b, cf. Pl. 55b). Note continuous frieze on both kanṭhas.

Pl. 102d Airāvateśvara, Dārāśuram. Detail first
tala. Note application of archaic type
of kapota and kūdu; base of kāl resem-
bles that at Kuttālam(cf. Fig. 41c, p. 211)
bud of lotus more developed due to in-
troduction of tiny padmabandha.



Pl. 102e Airāvateśvara, Dārāśuram. Detail upāna.
Note scrolls in vertical panels, continuous
frieze under old-fashioned kapota and lotus
moulding as at Tiruchchātturai(cf. Pl. 26).

Index

Temples(sites) and main architectural terms(typology).

References to

pages: 1,2,3,4 etc.

appendices: 1,2,3,4 etc. 4/12: appendix 4 no. 12.

plates: 1,2,3,4 etc.

tables: A,B,C,D,and E.

description of temples: 205-07, 311-12 etc.

- Adhiṣṭhāna, 198-201.
- Āduturai, 163, 171, 205, 255, 256, 263, 11/4, 12.
- Aihoḷe, Meguti 45, 93.
Gaḷagnātha 93.
- Ālabakkam, 295, 296, 297, 298, 12, 14/22, 95a-b, E; (perumal, 280, 284).
- Alḷūr, Pañcanādīśvara 142, 143, 203, 205, 214, 276, 287, 296, 298, 9/23a, 14/18, 57a-b, E.
Paśupatiśvara 276, 298, 9/23b, 14/19, E.
- Ānangūr, 159, 162, 171, 255, 11/12, 12, A.
- Andanallūr, 56, 109-10, 142, 296, 298, 4, 7/13, 14/20, E.
- Ardhamandapa, 150-52.
- Attur, 16
- Śādāmī, Mālegiṭṭī Śivālaya, 43-45, 93, 8, 9.
Makuteśvara 93.
- Bāhūr, 89, 95, 220, 222, 225, 226, 228, 242, 266, 267, 269, 277, 10/14, 13/6, 72e.
- Biccavolu, 46-47, 301, 3, 10-16.
- Brahmadēśam (S.A.), Brahmeśvara, 228, 272-72, 13/11, 85a-b.
Pātāleśvara, 155, 156, 228, 235, 243, 270, 13/19, 75a-b, B.
- Brahmadēśam(N.A.), 96, 99, 229, 230-31, 311, 15/11, 8.
- Chittūr, 156, 287, 290, 295, 297, 298, 14/11, 94a-b, A, B, E.
- Coḷapuram, 235, 302, 11/32, 12, 79.
- Dadapuram, Kundavai Vinnagar Alvar, 90, 95, 117, 122, 135, 136-37, 156, 173, 202, 203, 205, 234, 241, 243, 257, 268, 269, 270, 271, 273, 276, 296, 8/16b, 10/16b, 13/22, 52a-b.
Iravikulamanikka Īśvara, 90, 95, 117, 122, 135, 136-37, 156, 202, 203, 205, 234, 241, 243, 257, 268, 269, 270, 271, 273, 276, 296, 8/16a, 10/16b, 13/21, 72d.
- Oārāśuram, 315, 320, 102a-e.
- Enadi, 11, 14, D.
- Erumbūr, 89, 95, 111, 220, 222, 225, 277, 13/3.
- Eśālem, 228, 270-71, 13/9, Pls. 84a-b.
- Gaṇdaradittam, 122, 140, 177, 203, 256, 257, 273, 10/7, 12.

- Gaṅgaikoṇḍacolapuram, Central shrine, 20, 316-22.
 Uttara Kailāsa, 72, 148, 178, 180, 203, 234, 240,
 247, 263, 273, 302, 304, 11/33, 12, 14/34, 19, 19a-b, 22, E.
- Goburapatti, 117, 134-35, 136, 178, 180, 181, 182, 235, 241, 243, 259,
 261, 263, 264, 315, 8/13, 11/39, 12, 14/29, 49, E.
- Gōvīndaputtūr, 139-40, 177, 203, 204, 256, 9/20, 10/6, 12, 55a-b, A.
- Grāmam, 90, 95, 111, 148, 156, 220, 222, 225, 226, 277, 13/4.
- Jagatī, 199-200.
- Jambai, 89, 228, 235, 269-70, 277, 10/15 13/18, 83a-b.
- Kāl, 246-47.
- Kaliyapaṭṭi, 101, 278, 279, 285, 4, 14/2.
- Kaḷugumalai, 47-48, 293, 6.
- Kamarasavalli, 8, 14.
- Kambadahalli, 42, 301, 3.
- Kāñcī, Mātangeśvara, 99.
 Kailāsanātha, 100, 113, 150, 15/6, 3, 36.
 Pīravātaneśvara, 39, 41, 3, 15/7, 2.
 Sokkeśvara, 228, 232-33, 235, 309-11, 313, 314, 15/24, 71a-b, 108.
 Ekambaranātha, 234, 235, 242, 314, 317, 15/25.
- Kaṇḍiyūr, see Tirukkāṇḍiyūr
- Kannanūr, 54, 276, 278, 282-84, 286, 4, 6, 14/7, 88.
- Kaṇṭha, 199-200.
- Karandai, 121, 127, 128, 129, 131, 253, 8/5, 10/3, 12, 42a-b, B.
- Kāvaṇṭandālam, 235, 273, 277, 309-11, 313, 314, 315, 15/20, 99a-b.
- Kāverīpakkam, 203.
- Kāverīpatnam, 21.
- Kilaiyūr, Agastyeśvara, 55, 103, 109, 202, 287, 290, 296, 298, 4, 6, 7/12a,
 12, 14/15, 33a.
 Coḷeśvara, 103, 109, 202, 287, 290, 298, 4, 6, 7/12b, 12, 14/15, 33b.
- Kīlappaḷuvūr, 132-34, 156, 235, 296, 8/12, 12, 14/28, 48.
- Kilattanaiyam, 4.
- Kiḷiyanūr, 90, 110, 111, 148, 202, 205, 220, 224, 225, 276, 13/14.
- Kīlūr, 90, 95, 155, 203, 224, 225, 226, 228, 235, 242, 265, 266,
 267, 269, 270, 10/12, 13/16.
- Kīṭṭanūr (Tj.), 171, 255, 261, 263, 11/2, 12.
- Kiranūr (Tri), 56, 107, 203, 205, 276, 284-85, 4, 14/5, 90a-b, C.

- Koḍumbāḷūr, Aivar Koyil, 292, 293, 297.
 Mucukundeśvar, 156, 278, 282, 286, 287, 290, 291, 295, 297, 298,
 4, 6, 14/9.
 Mūvar Koyil, 5, 51, 61, 202, 278, 282, 286, 287, 290, 291-95, 297,
 298, 4, 6, 14/10, *93*, C.
 Kōnērīrājapuram, 91, 114, 115, 159, 161, 163, 171, 174, 210, 224, 255, 261,
 11/1, 12.
 Korkai, 16.
 Kōvilāḍi, 144-45, 235, 245, 9/26, 12, *81*.
 Kōyildēvarāyanpēṭṭai, 127, 129-30, 131, 133, 134, 221, 247, 253, 263, 8/7, 12,
 44, A, E.
 Kuhūr 54, 131, 159, 161, 169, 171, 256, 258, 4, 11/11, 12, A.
 Kūḷambandal, 72, 111, 202, 205, 235, 236, 238, 241, 273, 309, 311-13,
 314, 315, 15/29, *20a-b*, E.
 Kumāravayalūr, 261, 276, 295, 296, 14/23, A, E.
 Kumbakonam, 61, 101, 102, 103, 105, 106, 114, 119, 154, 207, 215,
 217, 218, 247, 249, 252, 253, 286, 293, 298, 4, 6, 7/8,
 12, *30*, *92a*, 8, E.
 Kumuda, 199-200.
 Kuram, 56, 277.
 Kuttālam, 117, 119, 131, 135, 136, 137, 152, 171, 173-74, 175, 176,
 177, 181, 203, 210, 257, 259, 268, 8/9, 11/19, 12, A.
 Kuvam, 277, 309, 313-14, 15/22.
 Laigudi, 54, 107, 121, 138, 146, 158, 185, 217-18, 261, 298, 4, 6,
 7/11, 12, 14/16, *32*, A, 8.
 Madagadipattu, 203, 228, 235, 267, 268-69, 13/20, *82*, C, E.
 Madurai 22.
 Mahārājapuram 203, 204, 302, 303, 11/31, 12, C.
 Māmallapuram, Arjuna Ratha, 38, 39-41, 93, 100, 3, 15/2, 1.
 Dharmarāja Ratha, 15/4.
 Draupadi Ratha, 3.
 Mukunda Nayanar, 93, 113, 312, 15/1, *37*.
 Olakaneśvara, 93, 112, 113, 118, 119, 6, 15/5.
 Shore Temple, 41, 93, 15/3, 4.
 Valaiyaṅkuṭṭai, 99, 235, 3.
 Manampādi, 132, 135, 171, 172, 175-76, 180, 181, 259, 296, 8/11, 11/21,
 12, *46a-b*.

Mēlappaḷuvūr, Sundareśvara, 280.

Sundareśvara, Amman shrine, 235, 302, 303, 11/37, 12, 14/32.

Melatiruppūndurutti, 54, 93, 104, 124, 129, 138, 153, 214, 216, 218, 252,
263, 278, 296, 298, 301, 4, 6, 7/7, 12, 29a-b, B.

Mēlpādi, Coḷeśvara or Aruñjiyeśvara, 96, 219, 228, 272, 310, 15/19, E.

Somanātheśvara, 96, 97, 221, 228, 15/18, 0.

Nāgapattinam, 101, 164, 167, 170-71, 174, 177, 255, 259, 261, 11/17, 12.

Nangavaram, 54, 141-42, 143, 231, 248, 249, 276, 286, 287, 290, 291,
295, 296, 298, 4, 6, 9/22, 14/21.

Nandi, 42, 301, 3.

Nangūr, 184.

Narasamaṅgalam, 42, 3.

Nārttāmalai, Vijayālaya Coḷeśvara, 55, 107, 276, 278, 279, 280-82, 4, 14/1,
87, A.

Melakkadambūr, 157, 204, 205, 219, 235, 6, 14/33, B, C, D, E.

Caves, 280, 281, 284.

Nemam, 55, 142-43, 218, 252, 282, 287, 298, 4, 6, 9/24, 12, 59.

Nirpaḷani, 219, 220, 14, A, 0.

Panangudi, 101, 103, 278, 279, 283-84, 4, 6, 14/6, 18.

Pañjara, 111-16.

Paramēśvaramaṅgalam, 153, 155, 232, 242, 272, 277, 10/17, 15/15, B, E.

Pateeśvaram, 171-73, 256, 258, 259, 261, 11/18, 12, A.

Paṭṭadkal, Virūpākṣa, 20, 43, 3, 5-6.

Sangameśvara, 43, 7.

Paṭṭikā, 199-201.

Pennadam, 63, 64, 243, 13/10, 77.

Pēraṅgiyūr, 220-22, 226, 231, 13/5, 65a-b, A.

Perungudi, 276, 295, 296, 297, 14/25, 97, B.

Peruṅguḷam, 201, 16.

Podigai 300.

Pudūr (near Brahmadeśam, N.A.), 309, 311-13, 15/23, 101.

Puḷḷamaṅgai, 77, 91, 102, 106, 108, 112, 113, 114, 115, 117, 119,
120-21, 122, 124, 131, 134, 152, 158, 174, 203, 217, 218,
251, 253, 273, 293, 298, 6, 8/2, 12, 38a-d, A.

Puñjai, 91, 145-47, 152, 158, 171, 172, 178, 182-83, 184, 185,

244, 261, 264, 293, 302, 6, 9/27, 10/10, 11/25, 12, 60a-b, A.

Rāmanātha Kōyil, 178, 180, 203, 204, 302, 303, 11/30, 12, A, C, E.

Sanḍūr,	93.
Sapta Sthānas,	93, 94, <u>104-05</u> , 114, 154, 157, 207, 211, 212, <u>214-16</u> , 247, 258, 278, 285, 287, 290, 292, 295, 298, 299, 301, 6, B, D.
Śembyan Mahādevī,	101, 114, 159, 162, 164, 169, 171, 174, 257, 258, 11/14, 12.
Śendalai,	22, 55, 100, 203, 218, 252, 284, 4, 12, A, C.
Sendamaṅgalam	16.
Siddhaliṅgamaḍam,	271, 272, 13/12.
Śikhara,	<u>275-76</u> .
Śōmūr,	295, 296, <u>297</u> , 14/24, 96, A, E.
Śrīnivāsanallūr,	56, 61, 74, 101, 103, 105, <u>106-09</u> , 114, 121, 143, 154, 158, 164, 203, 205, 207, 214, 215, <u>217</u> , 219, 244, 251, 255, 273, 286, 298, 4, 6, 7/10, 14/13, <u>31a-d</u> , 8.
Sripurambyam, see Tiruppurambyam	
Takkōlam,	56, 100, 203, <u>229-30</u> , 231, 232, 15, 10, D.
Tañjāvūr,	20, <u>165-67</u> , 173, 178, 180, 181, 182, 183, 184, 218, 237, 238, 239, 241, 258, 259, 263, 264, 297, 302, <u>316-22</u> , 73.
Tennēri,	96, 111, <u>117</u> , <u>137</u> , 153, 155, 236, 238, 241, 8/17, 15/17, B, C.
Tillaisthānam,	91, 93, 101, 104, 113, 153, 217, 251, 278, 287, 298, 301, 4, 7/2, 12, 24, 8.
Tiṇḍivanam,	90, 95, 97, <u>136</u> , 137, 203, <u>225-228</u> , 231, 241, 265, 266, 269, 276, 8/15, 13/15, 51, <u>63a-b</u> , D.
Tiruchchātturai	54, 55, 93, 103, 104, 105, 106, 109, 143, 153, 214, 216, 217, 235, 252, 286, 287, 298, 301, 4, 6, 7/4, 12, 28, 8.
Tiruchchendurai,	55, <u>109-10</u> , 142, 143, 287, 290, 291, 293, 298, 4, 6, 7/14, 14/14, E.
Tiruchcheṅgāṭṭaṅguḍi,	<u>169</u> , 171, 174, 256, 257, 11/16, 12.
Tiruchchennampūṇḍi,	53, 55, 56, 101, 103, <u>105-06</u> , 107, 118, 121, 130, 146, 182, 203, 205, 207, 214, 215, <u>216-17</u> , 218, 251, 255, 257, 261, 263, 290, 298, 4, 6, 7/9, 12, 34, <u>35a-b</u> , 8.
Tiruchirappalli (town),	22.
Tirukkaḍaiyūr,	101, 171, 172, <u>176-77</u> , 241, 263, 264, 10/11, 11/22, 12, <u>63a-b</u> .
Tirukkalitṭattai,	<u>139</u> , 140, 141, 144, 245, 257, 292, 9/19, 12, 54, A.
Tirukkaṇḍiyūr,	93, 103, 109, 153, 202, 205, 207, 214, 216, 218, 252, 253, 255, 287, 298, 299, 6, 7/6, 12, 28, B.
Tirukkalāvūr,	<u>138</u> , 146, 182, 185, <u>218</u> , 263, 273, 298, 6, 9/18, 12, 53.

Tirukkalikkunram	63, 64.
Tirukkattalai,	101, 103, 278, 282, 283, <u>286-92</u> , 295, 296, 297, 298, 4, 6, 14/8, A.
Tirukkāṭṭuppaḷḷi,	107, <u>144</u> , 203, 207, 284, 285, 296, 9/25, 14, <i>58a-b</i> .
Tirukkodikkaval,	159, 163, 171, 172, 210, 255, 6, 11/9, 12.
Tirukkoḷḷikkāḍu,	91, 145, 153, 164, 203, 235, <u>245</u> , 11/28, 12, <i>80a-b</i> , A.
Tirukkoyilūr,	203, 234, 272, 315, 13/24.
Tirukkuhukavūr,	139, 140, 177, 255, 256, 10/9, 12, <i>86</i> .
Tirumalavāḍi,	101, 202, 263, 302, 304, 11/34, 12.
Tirumaḷiśai,	235, 273, 309, <u>314-15</u> , 15/28.
Tirumaṇancheri,	256, 257.
Tirumaṇalam,	<u>134-35</u> , 136, 137, 178, 180, 181, 182, 234, 259, 261, 263, 264, 276, 8/14, 11/38, 12, 14/30, <i>40</i> , E.
Tirumayānam,	<u>128-29</u> , 130, 131, 134, 146, 153, 247, 253, 263, 296, 8/6, 12, <i>43a-c</i> , E.
Tirumiyachchūr,	63, 145, 171, 178, <u>183-84</u> , 239, 257, 261, <u>264</u> , 6, 11/26, 12, <i>64c</i> , A.
Tirumullaiivāyil,	63, 111, 203, 204, 205, 235, 236, 238, <u>239-41</u> , 273, 277, 310, <u>313-14</u> , 15/31, <i>74</i> , E.
Tirunāgeśvaram,	171, 256, 11/3, 12.
Tirunāmanallūr,	89, 95, 110, 111, 183, 202, 205, 220, 222, 226, 234, 277, 13/13, 0.
Tirunaṇaiyūr,	163, 171, 203, 204, 205, 256, 257, 267, 6, 11/6, 12, C.
Tiruppachchiyūr,	111, 203, 205, 235, <u>236-39</u> , 277, <u>313-14</u> , 15/30.
Tiruppalanam,	93, 94, 101, 104, 121, 153, 158, 167, 217, 251, 258, 261, 278, 281, 287, 298, 299, 301, 6, 7, 12, <i>23</i> , B.
Tiruppattūr (Tri),	56, 282, 292, 293, 6.
Tiruppattūr (Tj),	3.
Tiruppaḷṭurai,	140-41, 144, 220, 224, 245, 253, 273, 292, 297, 9/21, 12, 14/26, <i>56</i> .
Tirupparkadal,	56.
Tiruppugalūr,	171, 239, 256, 258, 261, 11/7, 12.
Tiruppūr,	278, 279, 283, <u>285</u> , 4, 4/14, <i>89</i> .
Tiruppurambyam,	<u>121-23</u> , 124, 126, 127, 131, 158, 203, 252, 273, 6, 8/3, 10/1, 12, <i>40</i> .
Tirutṭāni,	96, 99, 155, 219, <u>231-32</u> , 277, 301, 15/2, <i>70</i> , D.
Tiruvadandai,	97, 235, <u>241-42</u> , 309, <u>314-15</u> , 15/26, E.

- Tiruvādūtūrai, 117, 123-26, 127, 134, 139, 143, 144-45, 146, 147, 152, 158, 173, 174, 175, 179, 205, 236, 252, 255, 293, 6, 8/4, 10/2, 12, 41.
- Tiruvaiyārū, Pañcanādīśvara, 55, 91, 93, 103, 109, 138, 153, 202, 205, 207, 214, 216, 252, 286, 287, 291, 298, 301, 4, 6, 7/5, 12, 27a-b, B.
- Uttara Kailāsa, 171, 178, 181-82, 202, 235, 237, 268, 10/8, 11/24, 12, 64a-b.
- Ten Kailāsa, 131-32, 135, 177-81, 202, 235, 264, 265, 268, 8/10, 11/23, 12, 47.
- Tiruvakkarai, 222-24, 235, 13/1, 67, D.
- Tiruvalaṅgūḷi, Śrī-Kapardīśvara, 171, 172, 174-75, 176, 180, 181, 235, 257, 259, 11/20, 12, 63c-d.
- Ksetrapāladeva, 163, 171, 210, 255, 6, 11/5, 12, 64b.
- Tiruvaiśvaram, 72, 282, 283, 292, 293, 6, 16, 21a-b, 92b.
- Tiruvallam, 228, 232, 277, 310, 15/16.
- Tiruvāmattūr, 95, 111, 220, 222, 225, 13/2, 66, D.
- Tiruvāṇḍārkōyil, 156, 222, 224-25, 242, 265, 267, 269, 10/13, 13/8, 68a-b, E.
- Tiruvānmiyūr, 100, 229, 231-32, 277, 15/4, D.
- Tiruvārūr, Acaleśvara, 91, 94, 97, 114, 135, 137, 166, 167-69, 171, 172, 173, 174, 257, 258, 261, 11/15, 12.
- Tyāgarājeśvara, 302, 303, 304, 309, 11/36, 12.
- Wanyaganātha, 145, 204, 302, 303, 304, 11/35, 12, A, C.
- Tiruvēdikkudī, 93, 101, 104, 105, 109, 113, 143, 153, 217, 251, 278, 286, 287, 290, 298, 299, 301, 6, 7/3, 12, 25, 8.
- Tiruveṅkādū, 184-85, 244, 247, 263, 269, 302, 6, 11/27, 12, 78a-b.
- Tiruveṇṇumbūr, 118-120, 123, 131, 144, 145, 156, 217, 218, 219, 261, 292, 295, 298, 8/1, 12, 14/17, 39.
- Tiruvīḍaimarudūr, 101, 159, 161, 162, 169, 171, 174, 224, 255, 11/13, 12.
- Tiruvīḷakkudī, 125, 158, 203, 252, 267, 273, 10/5, 12.
- Tiruvirāmeśvaram, 163, 171, 210, 256, 11/8, 12, 64a.
- Tiruvīśalūr, 324.
- Tiruvorriyūr, 111, 203, 204, 205, 235, 236, 238, 241, 173, 277, 313-14, 15/27, E.
- Tribhuvana (S.A.), 202, 235, 243-44, 267, 268, 13/23, 76a-b, C. E.
- Tribhuvanam (Tj), 315.
- Tudaiyūr, 130-31, 134, 177, 178, 181, 261-63, 264, 276, 8/8, 11/40, 12, 14/31, 45a-b.
- Uḍaiyārgudi, 147-48, 235, 252, 268, 9/28, 10/4, 13/7, 61a-b.

Upāna,	<u>233-34</u> .
Uraiyūr,	22.
Uttaramallūr, Sundara Varadarāja Perumal,	93, 99, 100, 107, 138, 280, 281, 15/8, 72a.
Kailāsanātha (Pallava),	41-42, 99, 100, 107, 230, 280, 281, 3, 15/9.
Kedareśvara,	202, 234. 72b.
Vaikuṇṭha Perumal,	280, 281.
Uyyankōṇḍān Tirumalai,	<u>148-49</u> , 156, 178, 220, 276, 9/29, 14/27, A.
Vali kandapuram,	4.
Vari,	<u>210-12</u> .
Vēdāranyam,	101, 203, 244, 247, 253, 263, 269, 302, 11/29, 12, B, E.
Veḷachchēri,	100, 229, <u>231</u> , 301, 15/13, 0.
Vempakkam,	<u>309-11</u> , 313, 314, 15/21, 98.
Vijayanarayanam,	16.
Vimāna,	<u>85-88</u> .
Virālūr,	54, 276, 284, <u>285-88</u> , 297, 4, 14/12, 91.
Viśālūr	278, 279, <u>285</u> , 4, 14/3, 17.
Vriddhāchalam,	90, 95, 134, 136, 159, 163, 171, 172, 203, 205, 210, 222, 225, 235, 243, 257, 266, 268, 270, 315, 11/10, 12, 13/17, 75c.

